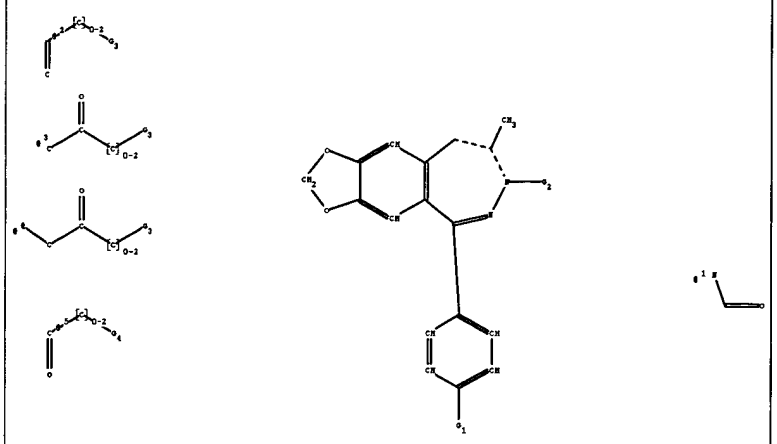
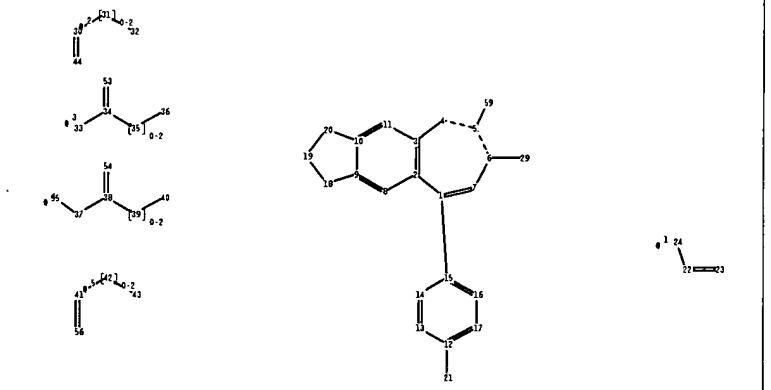
April 23, 2002

C:\STNEXP4\QUERIES\094[redacted]41.str

09/485,441





chain nodes :
21 22 23 24 29 30 31 32 33 34 35 36 37 38 39 40 41 42
43 44 53 54 55 56 59
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
chain bonds :
1-15 5-59 6-29 12-21 22-23 22-24 30-31 30-44 31-32 33-34 34-35
34-53 35-36 37-38 37-55 38-39 38-54 39-40 41-42 41-56 42-43
ring bonds :
1-2 1-7 2-3 2-8 3-4 3-11 4-5 5-6 6-7 8-9 9-10 9-18 10-11
10-20 12-13 12-17 13-14 14-15 15-16 16-17 18-19 19-20
exact/norm bonds :
1-2 1-7 3-4 4-5 5-6 6-7 6-29 9-18 10-20 12-21 18-19 19-20
22-23 22-24 31-32 34-53 35-36 38-54 39-40 41-56 42-43
exact bonds :
1-15 5-59 30-31 30-44 33-34 34-35 37-38 37-55 38-39 41-42
normalized bonds :
2-3 2-8 3-11 8-9 9-10 10-11 12-13 12-17 13-14 14-15 15-16
16-17
isolated ring systems :
containing 1 : 12 :

G1:NH2,NO2,[*1]

G2:[*2],[*3],[*4],[*5]

G3:N,X,Hy

G4:N,X,Hy,O

Match level :

1:Atom	2:Atom	3:Atom	4:Atom	5:Atom	6:Atom	7:Atom	8:Atom	9:Atom
10:Atom	11:Atom	12:Atom	13:Atom	14:Atom	15:Atom	16:Atom	17:Atom	
18:Atom	19:Atom	20:Atom	21:CLASS	22:CLASS	23:CLASS	24:CLASS		
29:CLASS	30:CLASS	31:CLASS	32:CLASS	33:CLASS	34:CLASS	35:CLASS		
36:CLASS	37:CLASS	38:CLASS	39:CLASS	40:CLASS	41:CLASS	42:CLASS		
43:CLASS	44:CLASS	53:CLASS	54:CLASS	55:CLASS	56:CLASS	59:CLASS		

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=> d his

     (FILE 'HOME' ENTERED AT 18:33:14 ON 23 APR 2002)

     FILE 'REGISTRY' ENTERED AT 18:33:19 ON 23 APR 2002
L1               SCREEN 963
L2               STRUCTURE UPLOADED
L3               QUE L2 AND L1
L4            10 S L3
L5           136 S L3 SSS FUL

     FILE 'CAPLUS' ENTERED AT 18:34:43 ON 23 APR 2002
L6            52 S L5

     FILE 'CAOLD' ENTERED AT 18:34:50 ON 23 APR 2002
L7             0 S L5

     FILE 'CAPLUS' ENTERED AT 18:35:24 ON 23 APR 2002
L8            35 S L6 AND JOURNAL/DT
L9             0 S L8 AND 2002/SO
L10            1 S L8 AND 2001/SO
L11            4 S L8 AND 2000/SO
L12            5 S L8 AND 1999/SO
L13           10 S L10 OR L11 OR L12
L14           42 S L6 NOT L13

=> d bib abs hitstr l14 1-42
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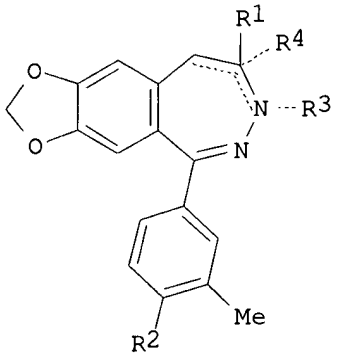
L14 ANSWER 1 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2001:50649 CAPLUS
DN 134:100896
TI Preparation of new 1,3-dioxolo[4,5-h][2,3]benzodiazepines as neuroprotective agents
IN Greff, Zoltan; Szabo, Geza; Barkoczy, Jozsef; Ratkai, Zoltan; Blasko, Gabor; Simig, Gyula; Gigler, Gabor; Martonne Marko, Bernadett; Levay, Gyorgy; Tihanyi, Karoly; Egyed, Andras; Simo, Annamaria
PA Egis Gyogyszergyar Rt., Hung.
SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

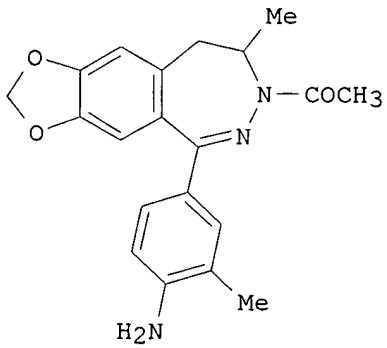
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001004122	A2	20010118	WO 2000-HU74	20000704

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI HU 1999-2291 A 19990707
OS MARPAT 134:100896
GI



I



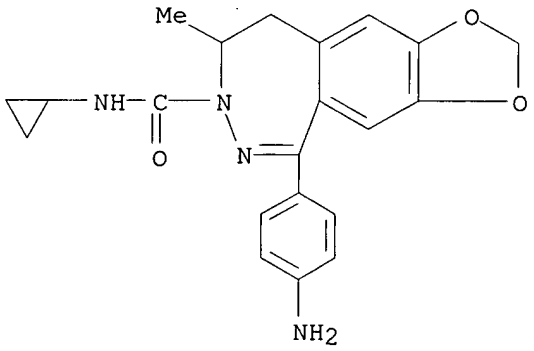
II

AB The title compds. [I; R1 = Me, CHO, CO2H, etc.; R2 = NO2, NH2; R3 = H, alkanoyl, CONR7R8 (wherein R7, R8 = H, alkoxy, alkyl, cycloalkyl; NR7R8 = (un)satd. 5-6 membered heterocyclic ring optionally contg. one or more further N, S and/or O atom(s)); R4 = H, alkyl; the dotted lines have the following meaning: if R3 and R4 are not present, the bond between positions C8 and C9 is a single bond and the bond between positions C8 and N7 is a double bond; if R3 and R4 are present, the bonds between positions C8 and C9 and between position C8 and N7 are single bonds; and if R3 is present and R4 is missing, the bond between positions C8 and C9 is a

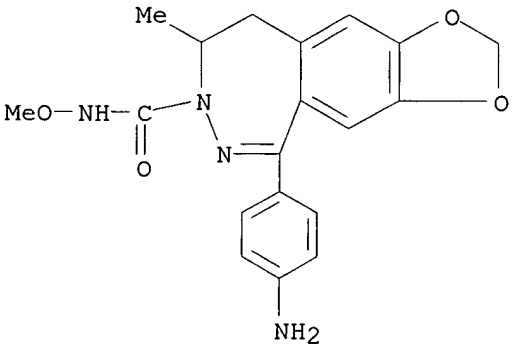
double bond and the bond between positions C8 and N7 is a single bond] which have neuroprotective effect, were prepd. E.g., a multi-step synthesis of 1,3-dioxolo[4,5-h][2,3]benzodiazepine II which showed PD50 (the dose that prolonged survival by 50%) of 5.4 mg/kg in MgCl2-induced global cerebral ischemia in mice (i.p.), was given.

IT **220669-66-9 220669-68-1 220670-32-6**
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(prepn. of new 1,3-dioxolo[4,5-h][2,3]benzodiazepines as neuroprotective agents)

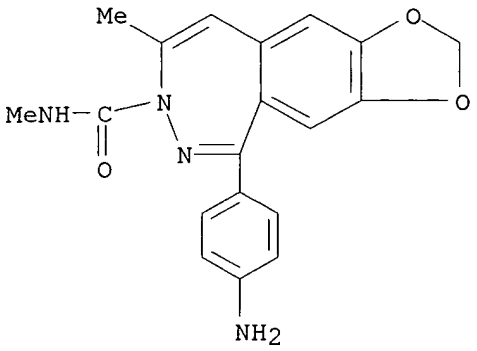
RN 220669-66-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-cyclopropyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 220669-68-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N-methoxy-8-methyl- (9CI) (CA INDEX NAME)



RN 220670-32-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N,8-dimethyl- (9CI) (CA INDEX NAME)


Me
O
MeNH
C
N
O
N
O
NH2

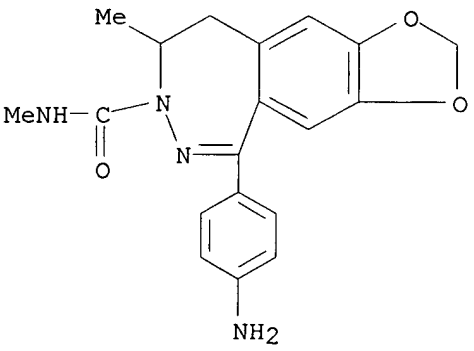
L14 ANSWER 2 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2001:25774 CAPLUS
DN 134:95505
TI Decoy peptides for treatment of neurotoxicity in Alzheimer's disease caused by .beta. amyloid peptides
IN Ingram, Vernon M.; Blanchard, Barbara J.
PA Massachusetts Institute of Technology, USA
SO U.S., 35 pp., Cont.-in-part of U.S. Ser. No. 960,188, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6172043	B1	20010109	US 1998-5215	19980109
PRAI US 1997-35847P	P	19970110		
US 1997-960188	B2	19971029		

AB The invention involves identification of a mechanism of .beta.-amyloid peptide cytotoxicity, which enables treatment of conditions caused by .beta.-amyloid peptide aggregates by administration of compds. which antagonize the mechanism of cytotoxicity. The invention includes the identification and isolation of compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates. The compds. include isolated peptides which were selected for their ability to form a complex with a .beta.-amyloid peptide, or are derived from peptides so selected. Methods for treating conditions resulting from neurotoxic .beta.-amyloid peptide aggregates and pharmaceutical prepns. are provided. Also provided are methods for selecting addnl. compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates.

IT **143692-18-6**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(decoy peptides for treatment of neurotoxicity in Alzheimer's disease caused by .beta. amyloid peptides)

RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2000:741905 CAPLUS
DN 133:305610
TI Treatment of neurological disorders with nitric oxide synthase inhibitors and excitatory amino receptor modulators
IN O'Neill, Michael John
PA Eli Lilly and Company Limited, UK
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061126	A2	20001019	WO 2000-GB1284	20000406

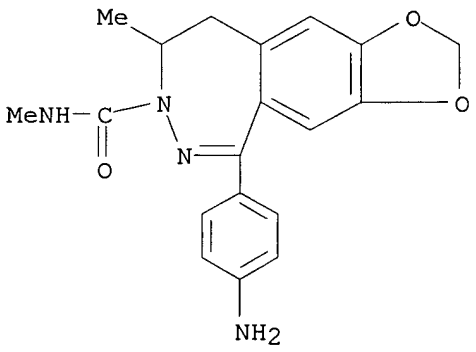
PI
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI GB 1999-8175 A 19990409

AB The present invention relates to a method of treating a neurol. disorder comprising administering to a patient an effective amt. of a nitric oxide synthase inhibitor in combination with an effective amt. of an excitatory amino receptor modulator. Combination of 2.5 mg/kg Mk-801, i.p., and 25 mg/kg ARL17477, i.p., had a synergistic degree of neuroprotection (78%) in cerebral ischemia induced in gerbils.

IT **143692-18-6**, Ly300168
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of neurol. disorders with nitric oxide synthase inhibitors and excitatory amino receptor modulators)

RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



L14 ANSWER 4 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2000:666600 CAPLUS
DN 133:247292
TI Amyotropic lateral sclerosis treatment with a combination of riluzole and an AMPA receptor antagonist
IN Bohme, Andrees; Boireau, Alain; Canton, Thierry; Pratt, Jeremy; Stutzmann, Jean-Marie
PA Aventis Pharma S.A., Fr.
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000054772	A1	20000921	WO 2000-FR590	20000310
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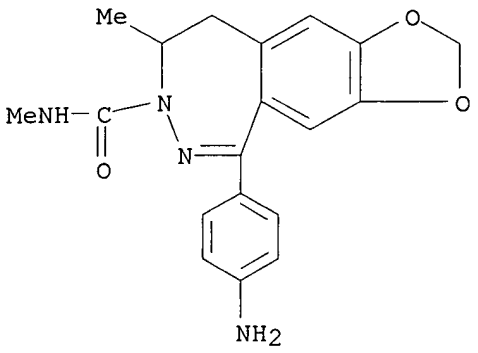
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2790670	A1	20000915	FR 1999-3100	19990312
	EP 1161238	A1	20011212	EP 2000-910920	20000310
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	FR 1999-3100	A	19990312		
	US 1999-129318P	P	19990414		
	WO 2000-FR590	W	20000310		

OS MARPAT 133:247292
AB The invention discloses the prevention and/or treatment of amyotropic lateral sclerosis with a combination of riluzole and one or several AMPA receptor antagonists, as well as combinations of these compds. and pharmaceutical compns. contg. them.
IT **143692-18-6**, LY 300168
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(riluzole-AMPA receptor antagonist combination for treatment of amyotropic lateral sclerosis)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2000:645836 CAPLUS
DN 133:238027
TI Preparation of 1,3-dioxolo[4,5-h][2,3]benzodiazepines for the treatment and prophylaxis of diseases related to the inhibition of lipid peroxidation
IN Raczne Bajnogel, Judit; Szenasi, Gabor; Gigler, Gabor; Levay, Gyorgy; Szabo, Geza; Tihanyi, Karoly; Egyed, Andras; Barkoczy, Jozsef; Ratkai, Zoltan; Greff, Zoltan; Schneider, Geza; Simig, Gyula; Balazs, Laszlo; Doman, Imre; Kotay, Nagy Peter; Seres, Peter
PA Egis Gyogyszergyar Rt., Hung.
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000053166	A2	20000914	WO 2000-HU11	20000215
	WO 2000053166	A3	20001221		

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RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI HU 1999-354 A 19990215
OS MARPAT 133:238027
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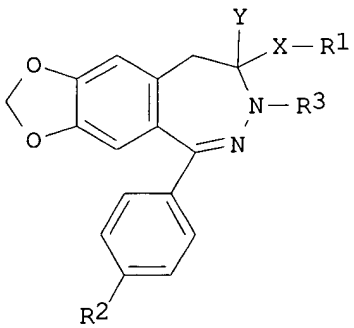


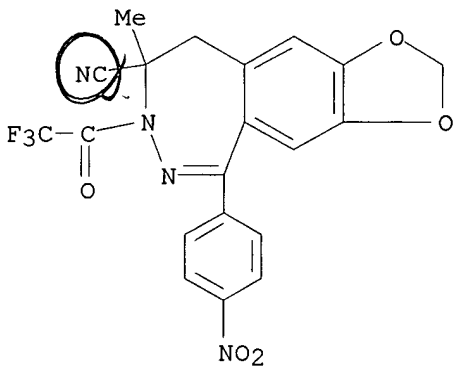
I

AB The title compds. [I; X = CO, CH2; R1 = H, OH, alkoxy, etc.; X together with R1 forms CN, tetrazolyl, CHNOH, COR6 (wherein R6 = OH, alkoxy, phenoxy, etc.); R2 = NO2, NH2, NHOH, alkanoylamino; R3 = H, alkyl, haloalkyl, etc.; Y = H, Me; Y together with R3 forms a bond between C atom in position 8 and N atom in position 7], useful for the treatment or prophylaxis of diseases and states related to increased (pathol.) lipid peroxidn., were prepd. E.g., a multi-step synthesis of I [XR1 = CN; Y = Me; R2 = NH2; R3 = COCF3] which showed 97% lipid peroxidn. inhibition at

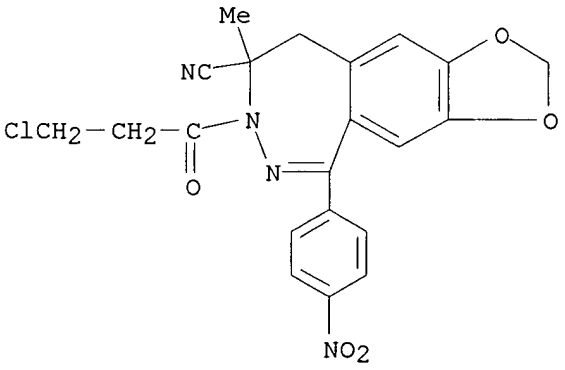
10-5 M, was given.

IT **220725-70-2P 220725-82-6P 220725-86-0P 293290-66-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of 1,3-dioxolo[4,5-h][2,3]benzodiazepines for the treatment and prophylaxis of diseases related to the inhibition of lipid peroxidn.)

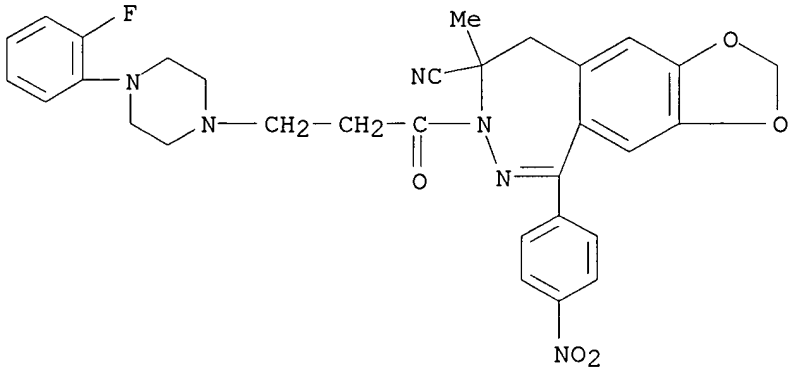
RN 220725-70-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



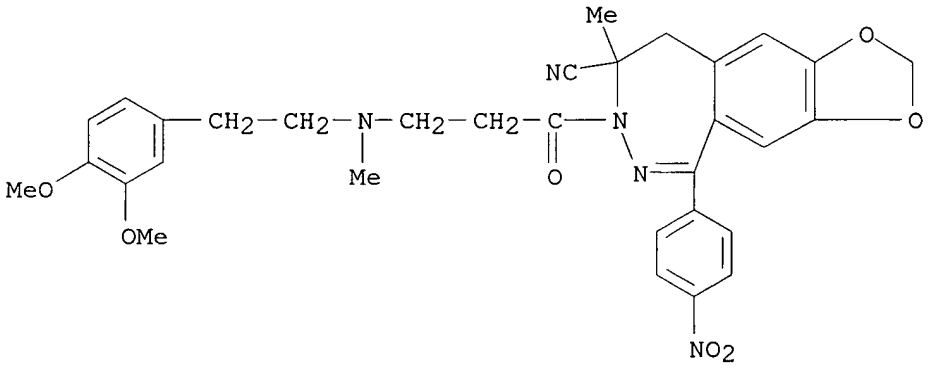
RN 220725-82-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-(3-chloro-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



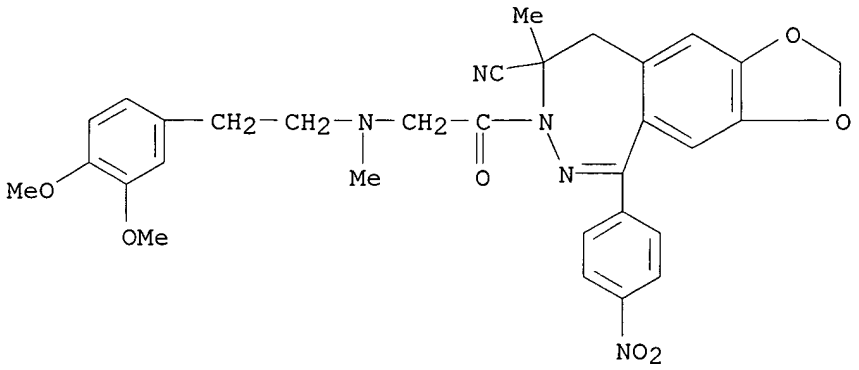
RN 220725-86-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[3-[4-(2-fluorophenyl)-1-piperazinyl]-1-oxopropyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



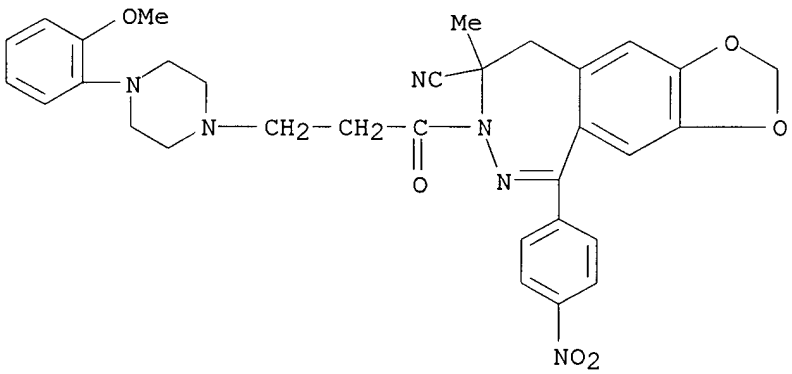
RN 293290-66-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-1-oxopropyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



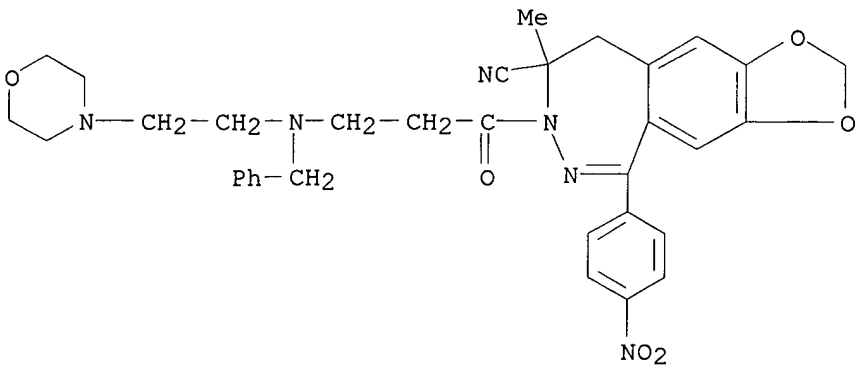
IT **220725-81-5P 220725-83-7P 220725-85-9P**
220725-96-2P 220725-97-3P 220726-02-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1,3-dioxolo[4,5-h][2,3]benzodiazepines for the treatment and prophylaxis of diseases related to the inhibition of lipid peroxidn.)
RN 220725-81-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



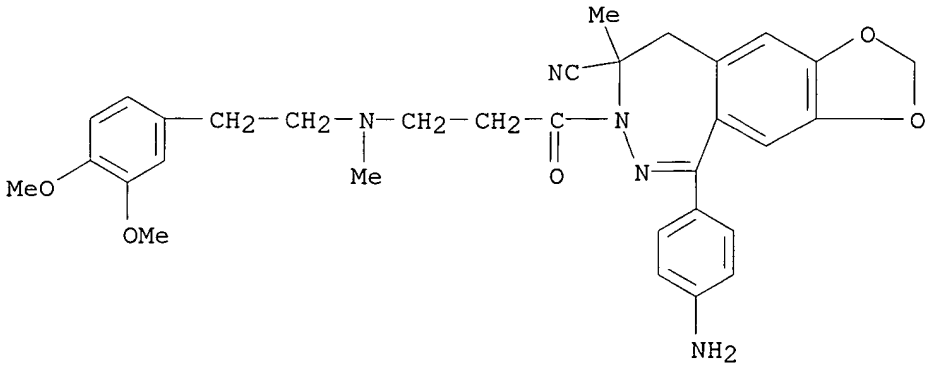
RN 220725-83-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-7-[3-[4-(2-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



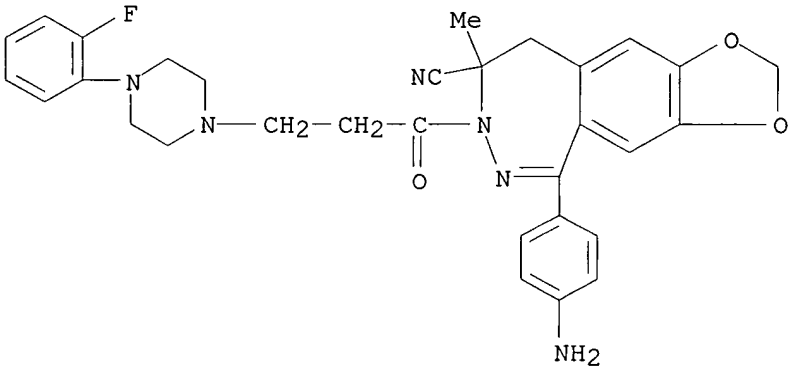
RN 220725-85-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-7-[3-[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]-1-oxopropyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



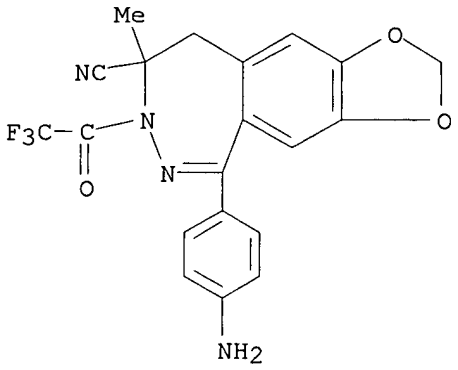
RN 220725-96-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-1-oxopropyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 220725-97-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[3-[4-(2-fluorophenyl)-1-piperazinyl]-1-oxopropyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 220726-02-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)


Me
NC
F3C
C
N
N
O
O
O
NH2

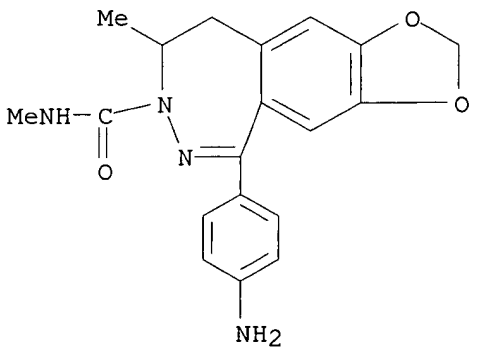
L14 ANSWER 6 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 2000:351162 CAPLUS
DN 133:790
TI New use of glutamate antagonists for the treatment of cancer
IN Ikonomidou, Hrissanthi
PA Germany
SO Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1002535	A1	20000524	EP 1998-250380	19981028
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 9964750	A1	20000515	AU 1999-64750	19991022
	EP 1124553	A1	20010822	EP 1999-952622	19991022
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	EP 1998-250380	A	19981028		
	WO 1999-EP8004	W	19991022		

AB New therapies can be devised based upon a demonstration of the role of glutamate in the pathogenesis of cancer. Inhibitors of the interaction of glutamate with the AMPA, kainate, or NMDA receptor complexes are likely to be useful in treating cancer and can be formulated as pharmaceutical compns. They can be identified by appropriate screens.

IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glutamate antagonists for cancer treatment)

RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



HCl

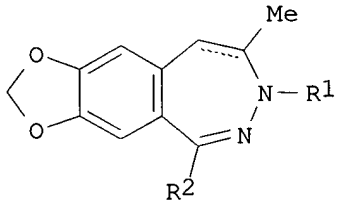
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

applicants

L14 ANSWER 7 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1999:126904 CAPLUS
DN 130:196675
TI Preparation of 1,3-dioxolo[4,5-h][2,3]benzodiazepines as AMPA/kainate receptor inhibitors
IN Barkoczy, Jozsef; Cselenyak, Judit; Ratkai, Zoltan; Simig, Gyula; Balazs, Laszlo; Doman, Imre; Kotay Nagy, Peter; Greff, Zoltan; Seres, Peter; Szabo, Geza; Gacsalyi, Istvan; Gigler, Gabor; Gyertyan, Istvan; Levay, Gyorgy; Kovacs, Attila; Simo, Annamaria; Szabados, Tamas; Egyed, Andras; Vegh, Miklos; Tihanyi, Karoly
PA Egis Gyogyszergyar Rt., Hung.
SO PCT Int. Appl., 139 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9907708	A1	19990218	WO 1998-HU76	19980807
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9888182	A1	19990301	AU 1998-88182	19980807
	EP 1015457	A1	20000705	EP 1998-939782	19980807
	R: AT, BE, CH, DE, DK, ES, GB, GR, LI, NL, SE, PT, SI, LT, LV, FI, RO				
	JP 2001512731	T2	20010828	JP 2000-506211	19980807
	NO 2000000654	A	20000410	NO 2000-654	20000209
PRAI	HU 1997-1382	A	19970812		
	HU 1997-1383	A	19970812		
	WO 1998-HU76	W	19980807		

OS MARPAT 130:196675
GI



I

AB Title compds. [I; dashed line = null and R1 = (CH2)nCO(CH2)mR; R = halo, NR3R4, pyridinyl; R3,R4 = H, NH2, cycloalkyl, alkoxy, Ph, etc.; NR3R4 = (un)satd. heterocyclyl; dashed line = bond and R1 = CO(CH2)pR6; R6 = halo, NR7R8, alkoxy, phenoxy, etc.; R7,R8 = H, (cyclo)alkyl, guanyl, etc.; R7R8 = atoms to complete a ring; R2 = C6H4R5-4; R5 = NO2, NH2, alkanoylamino; m,n,p = 0-2] were prepd. Thus, I [R2 = C6H4(NO2)-4, dashed line = bond](II; R1 = H) was condensed with 1,1'-carbonyldiimidazole and the product condensed with H2NCH2CH2R (R = morpholino). to give II (R1 = CONHCH2CH2R, R = morpholino). Data for biol. activity of I were given.

IT **173087-61-1P 220669-48-7P 220669-49-8P**
220669-51-2P 220669-52-3P 220669-53-4P
220669-54-5P 220669-56-7P 220669-57-8P
220669-58-9P 220669-60-3P 220669-62-5P
220669-63-6P 220669-64-7P 220669-65-8P
220669-66-9P 220669-68-1P 220669-70-5P
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220669-98-7P 220670-01-9P 220670-03-1P
220670-06-4P 220670-07-5P 220670-08-6P
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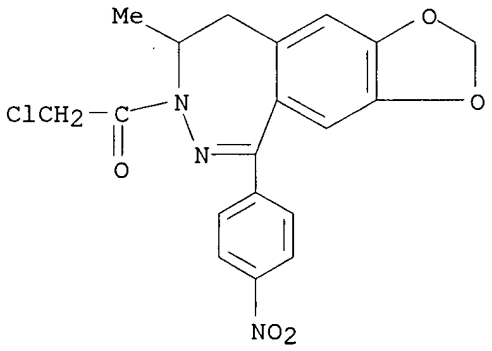
220670-28-0P 220670-29-1P 220670-31-5P
220670-32-6P 220670-33-7P 220670-34-8P
220670-36-0P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1,3-dioxolo[4,5-h][2,3]benzodiazepines as AMPA/kainate receptor inhibitors)

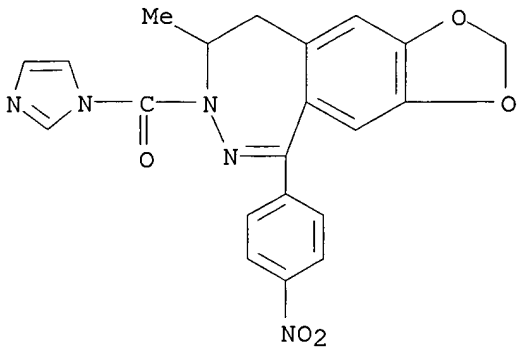
RN 173087-61-1 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

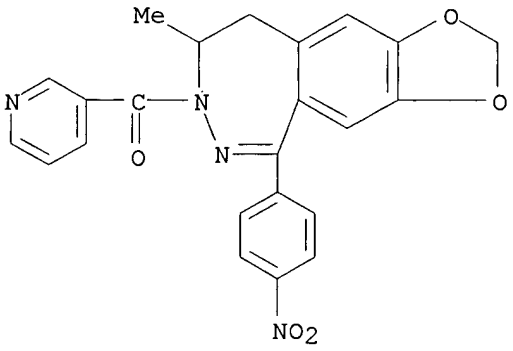


RN 220669-48-7 CAPLUS

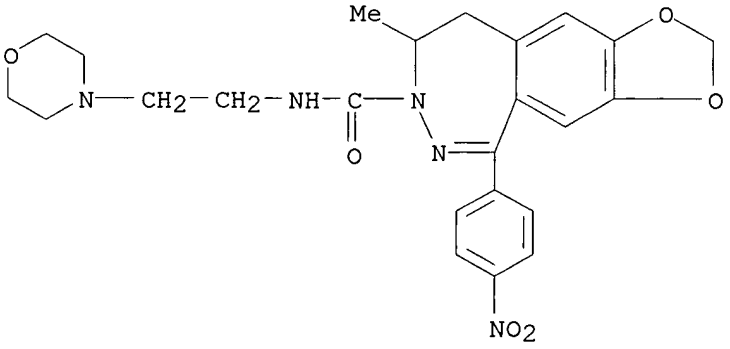
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(1H-imidazol-1-ylcarbonyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



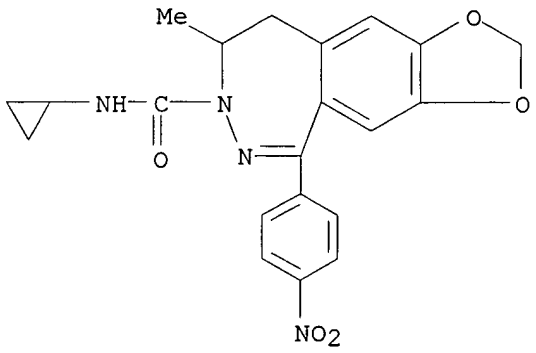
RN 220669-49-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(3-pyridinylcarbonyl)- (9CI) (CA INDEX NAME)



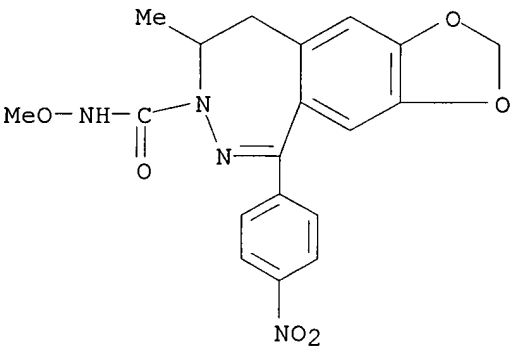
RN 220669-51-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-8-methyl-N-[2-(4-morpholinyl)ethyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



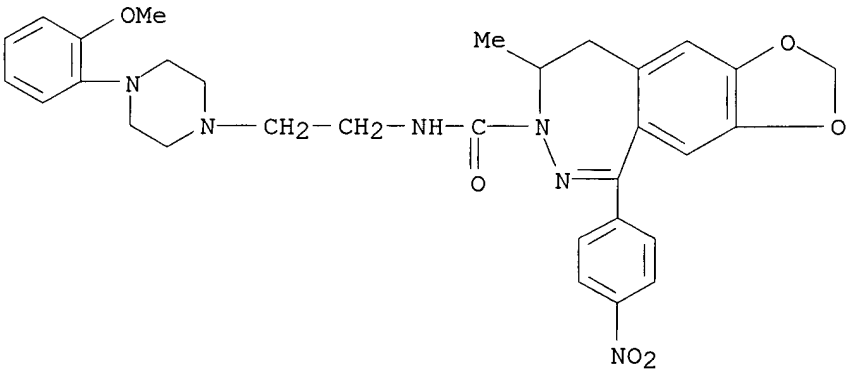
RN 220669-52-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-cyclopropyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 220669-53-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N-methoxy-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

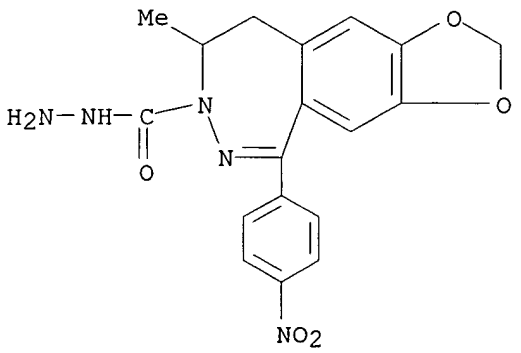


RN 220669-54-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

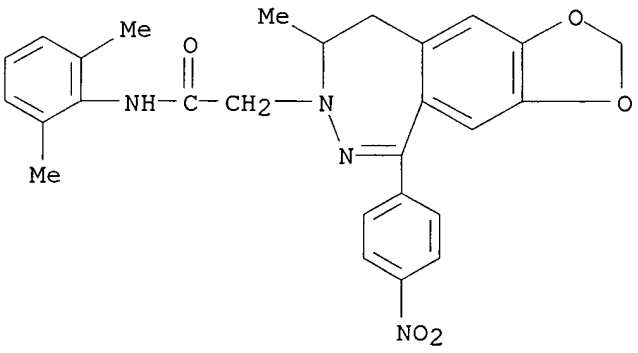


RN 220669-56-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxylic acid,

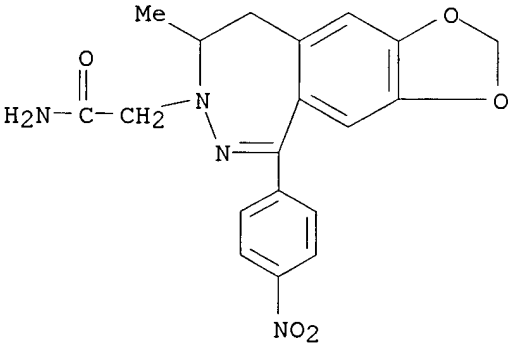
8,9-dihydro-8-methyl-5-(4-nitrophenyl)-, hydrazide (9CI) (CA INDEX NAME)



RN 220669-57-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-acetamide, N-(2,6-dimethylphenyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

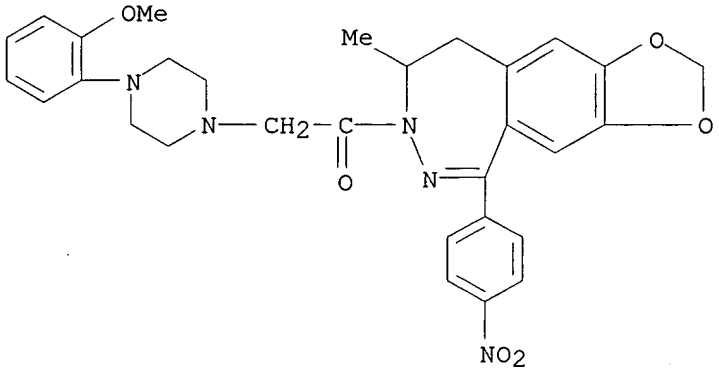


RN 220669-58-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-acetamide, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

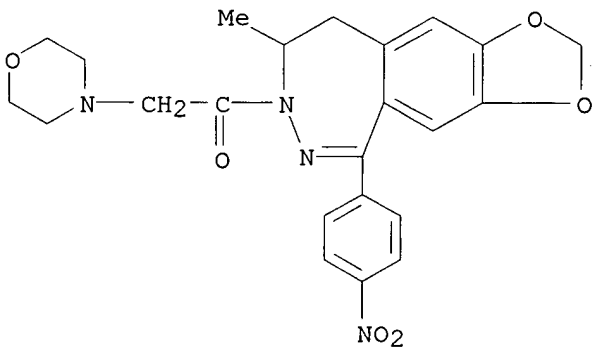


RN 220669-60-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-[[4-(2-

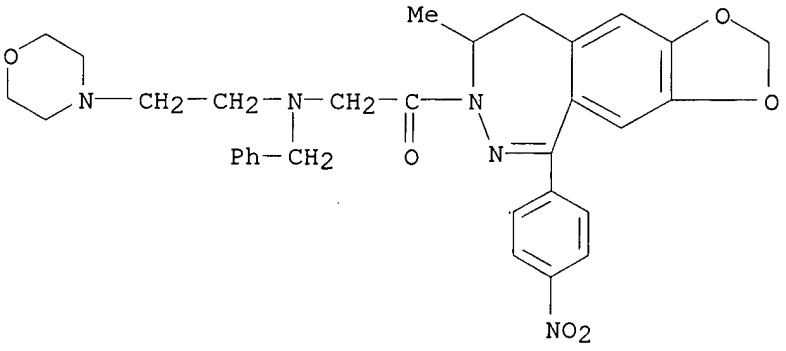
methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



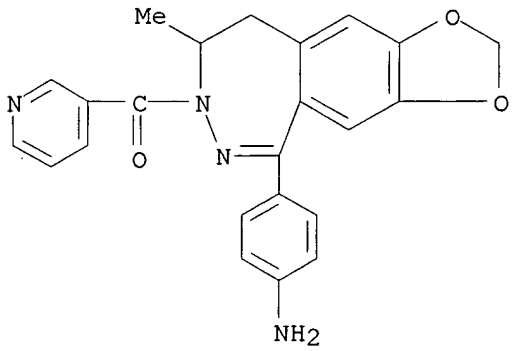
RN 220669-62-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-7-(4-morpholinylacetyl)-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



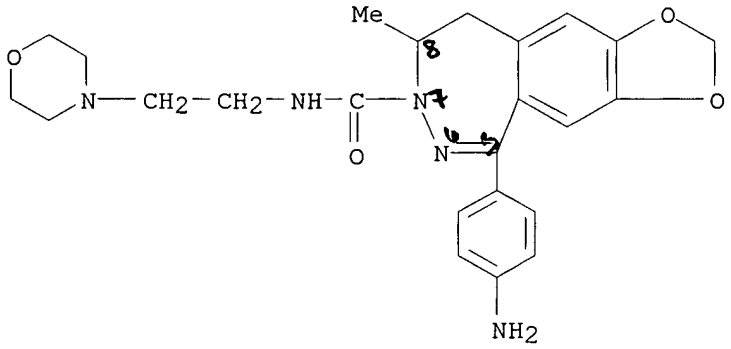
RN 220669-63-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-7-[[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]acetyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



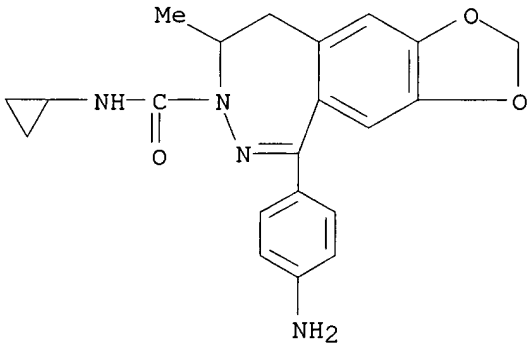
RN 220669-64-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(3-pyridinylcarbonyl)- (9CI) (CA INDEX NAME)



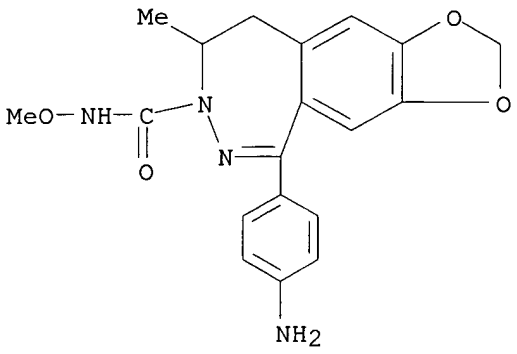
RN 220669-65-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)



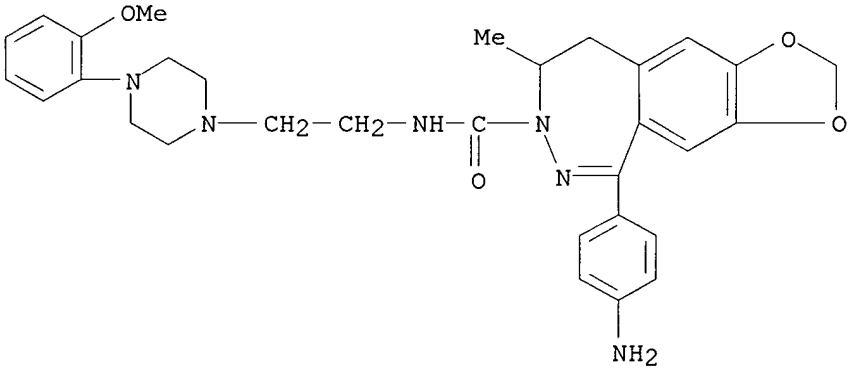
RN 220669-66-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-cyclopropyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



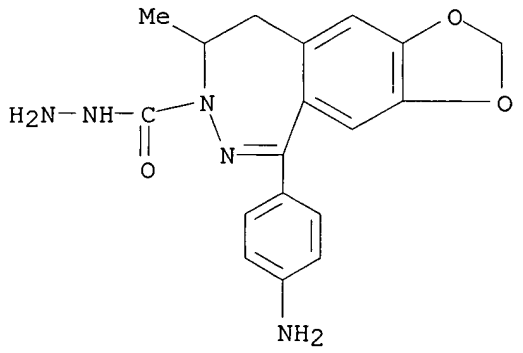
RN 220669-68-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N-methoxy-8-methyl- (9CI) (CA INDEX NAME)



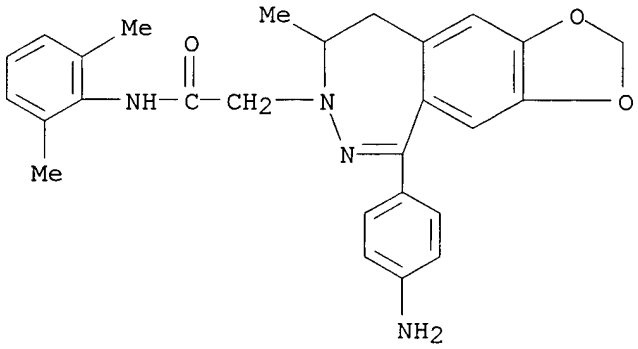
RN 220669-70-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl]-8-methyl- (9CI) (CA INDEX NAME)



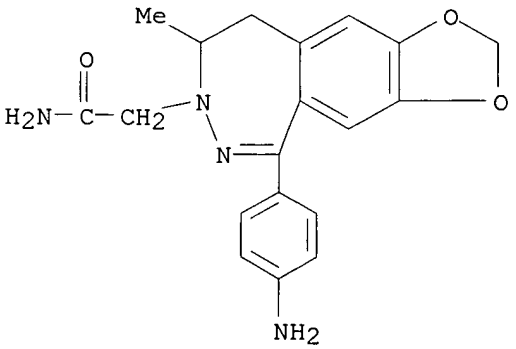
RN 220669-71-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxylic acid, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-, hydrazide (9CI) (CA INDEX NAME)



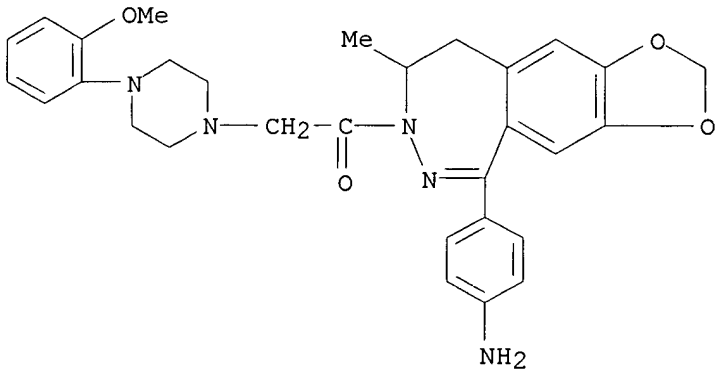
RN 220669-72-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-acetamide, 5-(4-aminophenyl)-N-(2,6-dimethylphenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 220669-74-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-acetamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



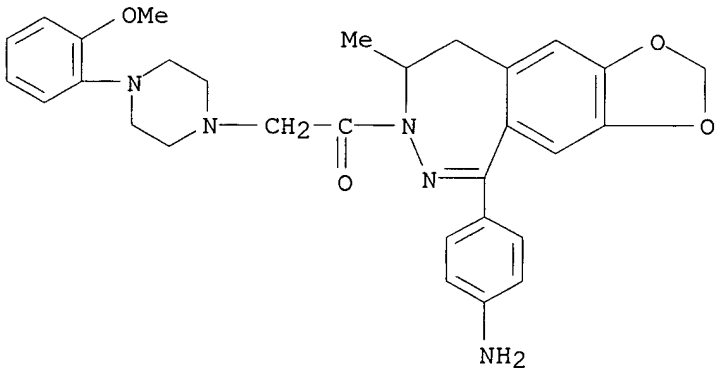
RN 220669-75-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-[[4-(2-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl- (9CI) (CA INDEX NAME)



RN 220669-76-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-[[4-(2-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl-, (2E)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

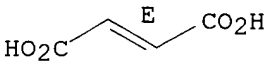
CRN 220669-75-0
CMF C30 H33 N5 O4



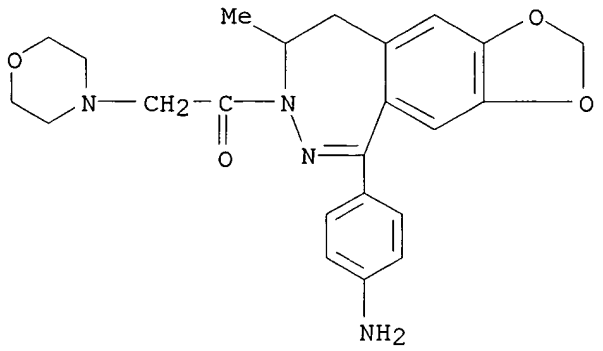
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

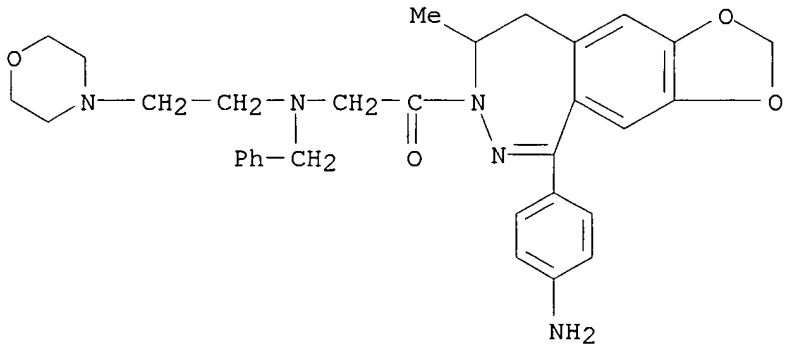
Double bond geometry as shown.



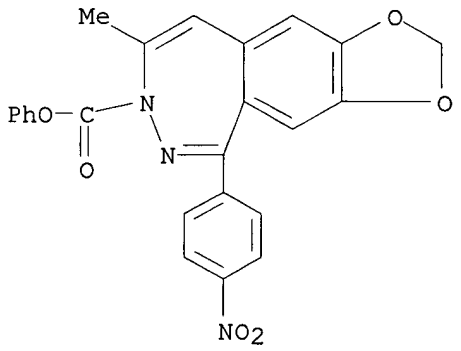
RN 220669-77-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(4-morpholinylacetyl)- (9CI) (CA INDEX NAME)



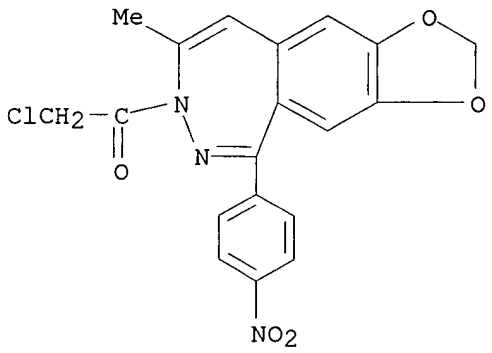
RN 220669-79-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]acetyl]- (9CI) (CA INDEX NAME)



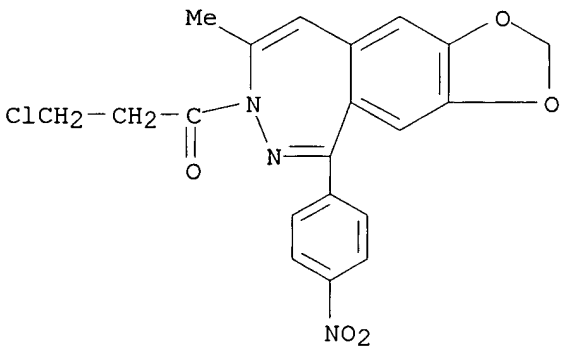
RN 220669-80-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxylic acid, 8-methyl-5-(4-nitrophenyl)-, phenyl ester (9CI) (CA INDEX NAME)



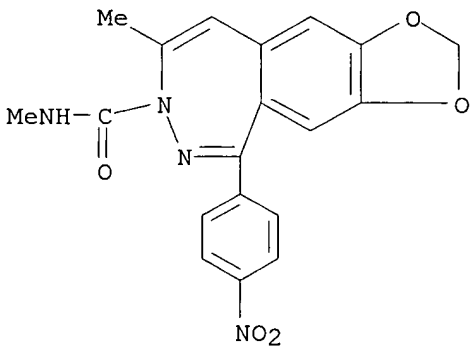
RN 220669-81-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



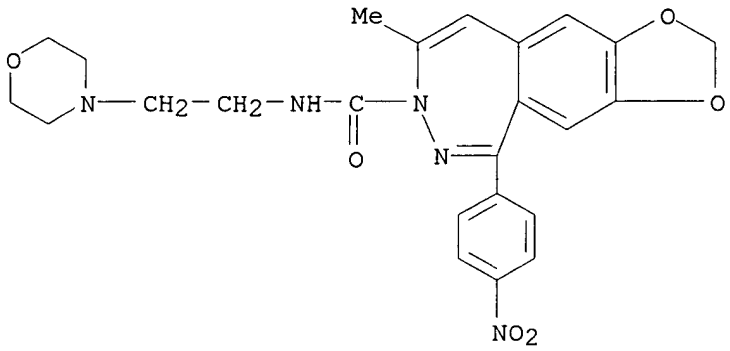
RN 220669-82-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(3-chloro-1-oxopropyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



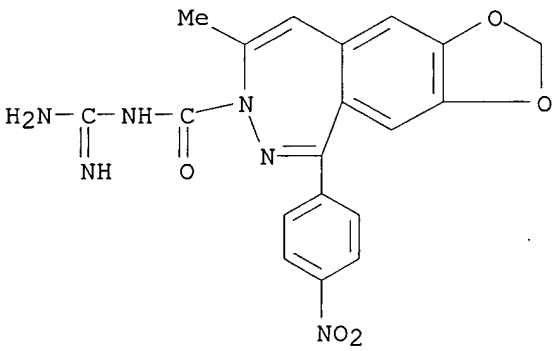
RN 220669-84-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N,8-dimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



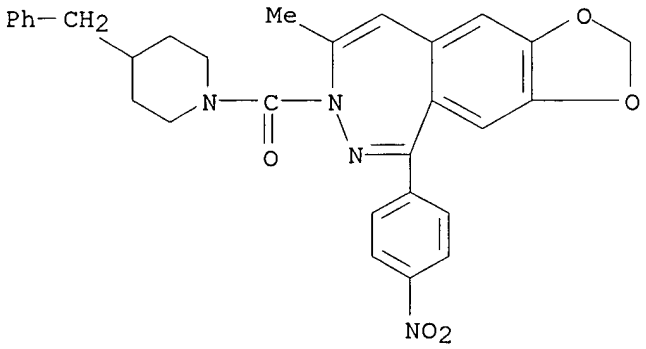
RN 220669-85-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8-methyl-N-[2-(4-morpholinyl)ethyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



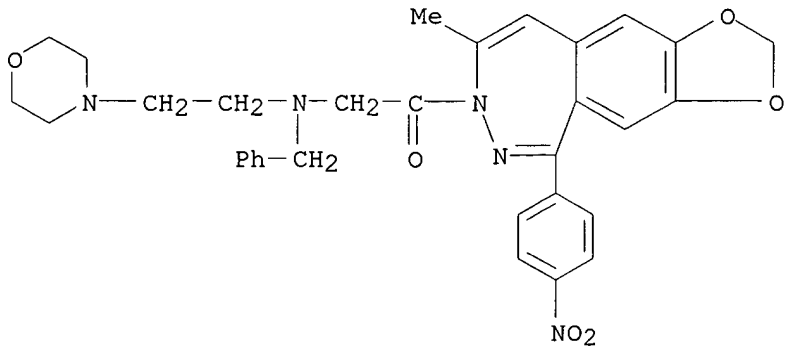
RN 220669-86-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-(aminoiminomethyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



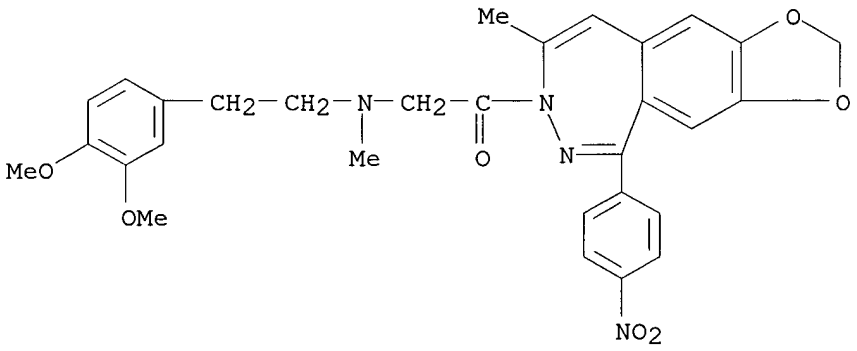
RN 220669-87-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8-methyl-5-(4-nitrophenyl)-7-[[4-(phenylmethyl)-1-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)



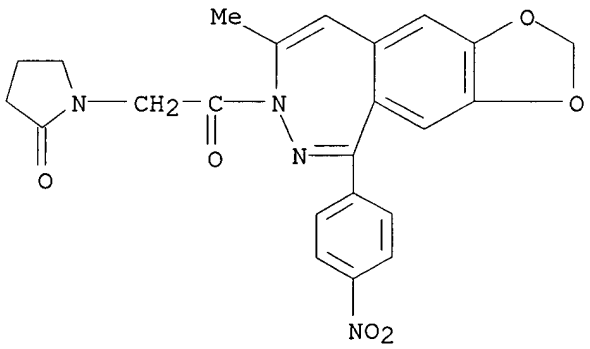
RN 220669-90-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8-methyl-7-[[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]acetyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



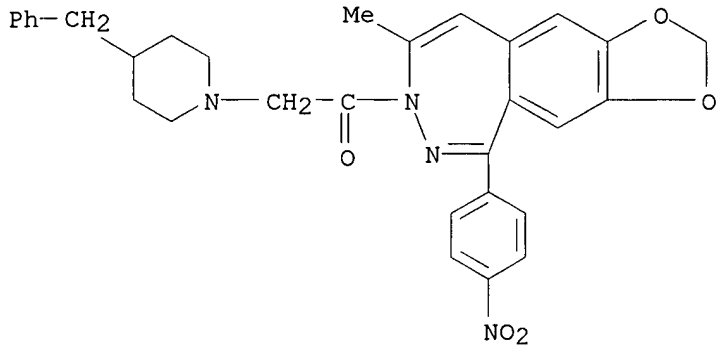
RN 220669-92-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



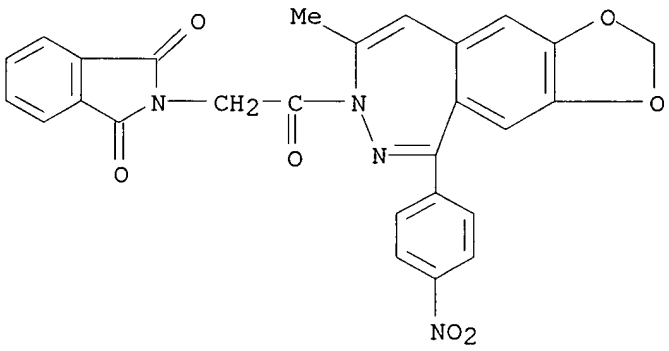
RN 220669-95-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8-methyl-5-(4-nitrophenyl)-7-[(2-oxo-1-pyrrolidinyl)acetyl]- (9CI) (CA INDEX NAME)



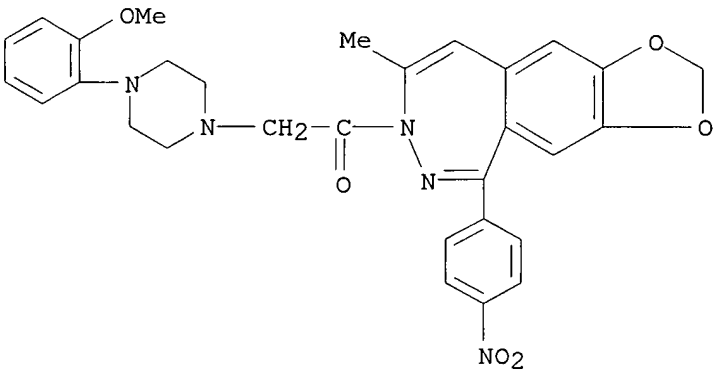
RN 220669-96-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8-methyl-5-(4-nitrophenyl)-7-[[4-(phenylmethyl)-1-piperidinyl]acetyl]- (9CI) (CA INDEX NAME)



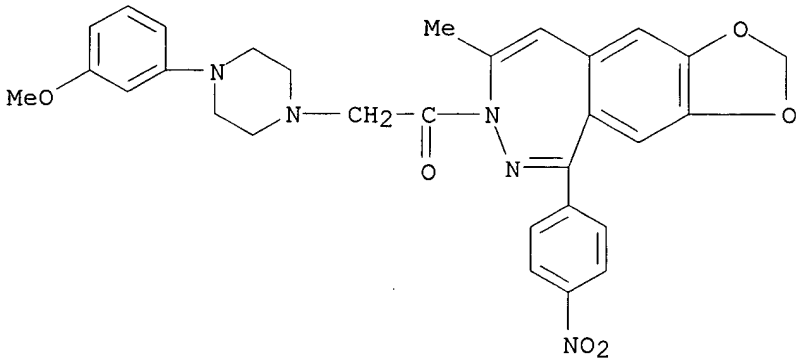
RN 220669-98-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



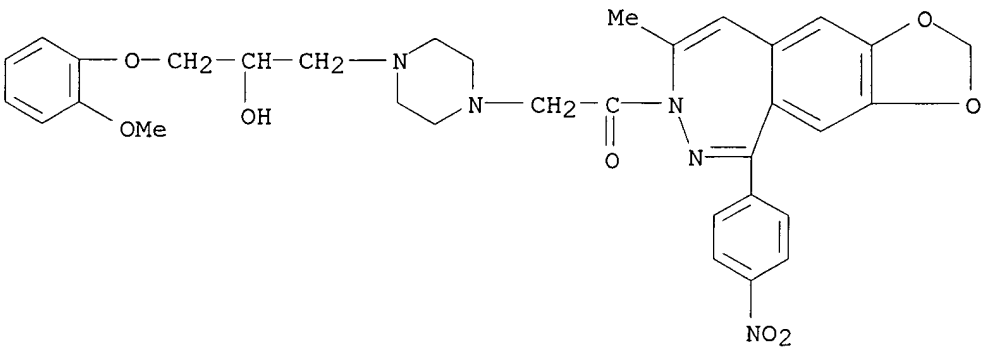
RN 220670-01-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[[4-(2-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



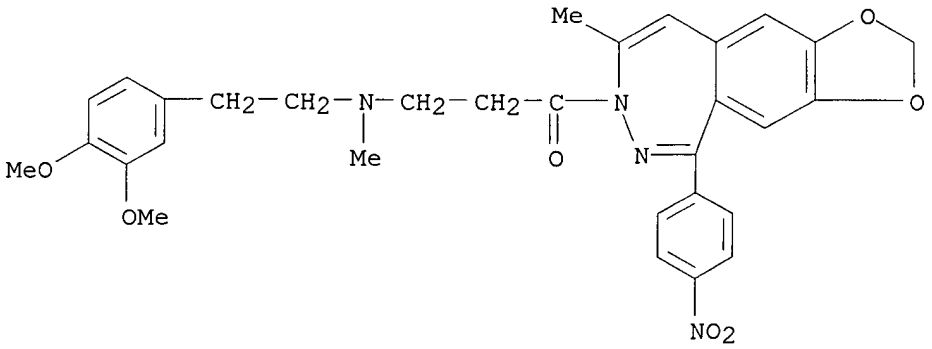
RN 220670-03-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[[4-(3-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 220670-06-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[[4-[2-hydroxy-3-(2-methoxyphenoxy)propyl]-1-piperazinyl]acetyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

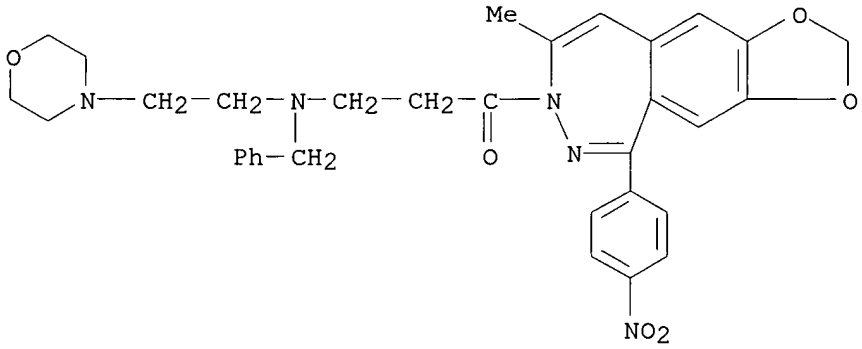


RN 220670-07-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-1-oxopropyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

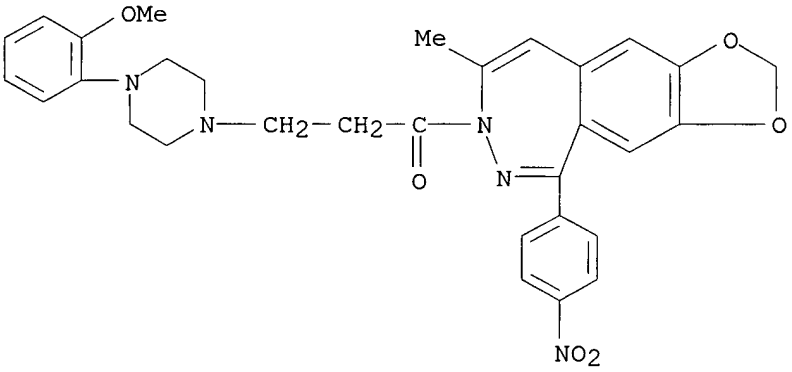


RN 220670-08-6 CAPLUS

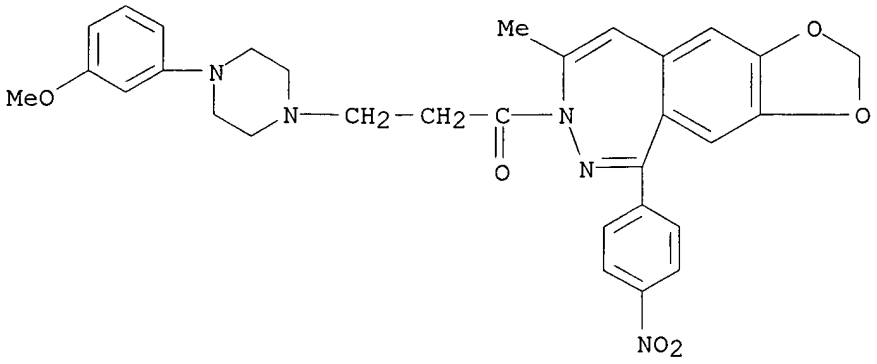
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8-methyl-7-[3-[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]-1-oxopropyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



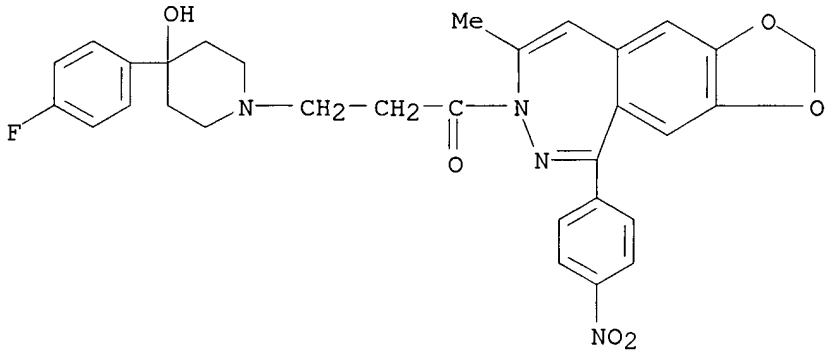
RN 220670-10-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[3-[4-(2-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



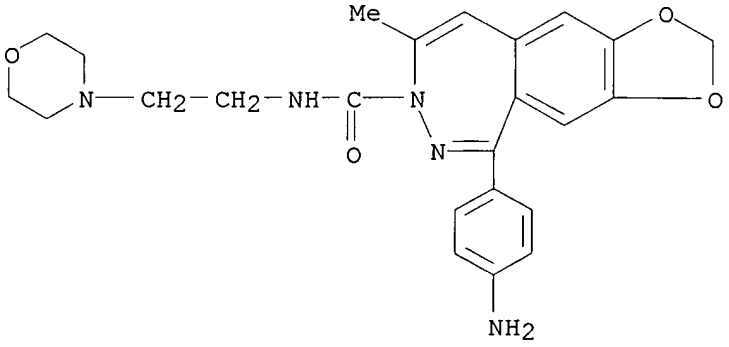
RN 220670-11-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[3-[4-(3-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 220670-12-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[3-[4-(4-fluorophenyl)-4-hydroxy-1-piperidinyl]-1-oxopropyl]-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

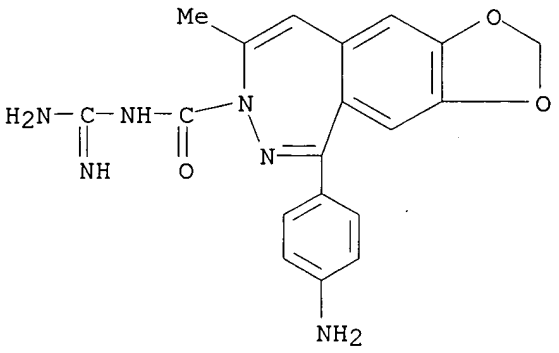


RN 220670-13-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8-methyl-N-[2-(4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)

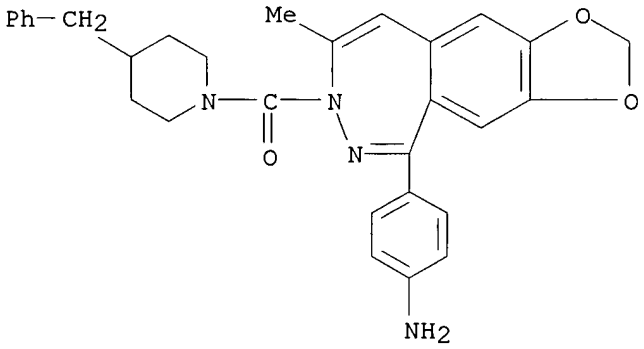


RN 220670-15-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,

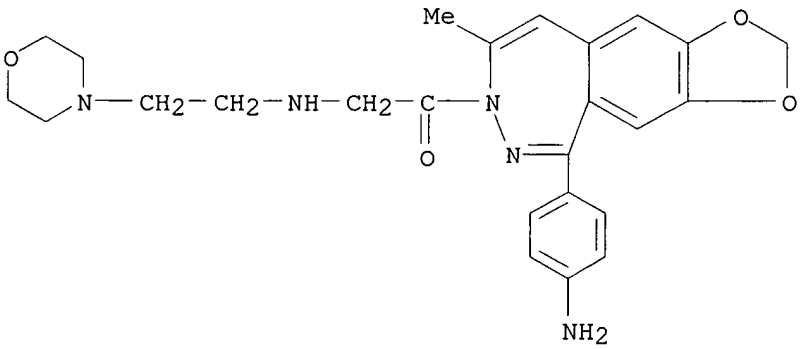
N-(aminoiminomethyl)-5-(4-aminophenyl)-8-methyl- (9CI) (CA INDEX NAME)



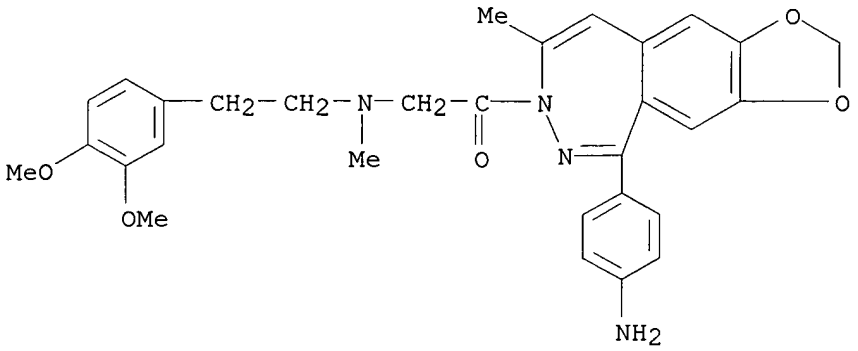
RN 220670-16-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8-methyl-7-[[4-(phenylmethyl)-1-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)



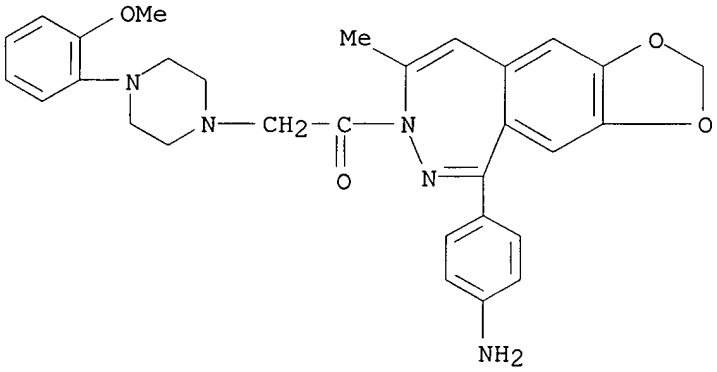
RN 220670-17-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8-methyl-7-[[[2-(4-morpholinyl)ethyl]amino]acetyl]- (9CI) (CA INDEX NAME)



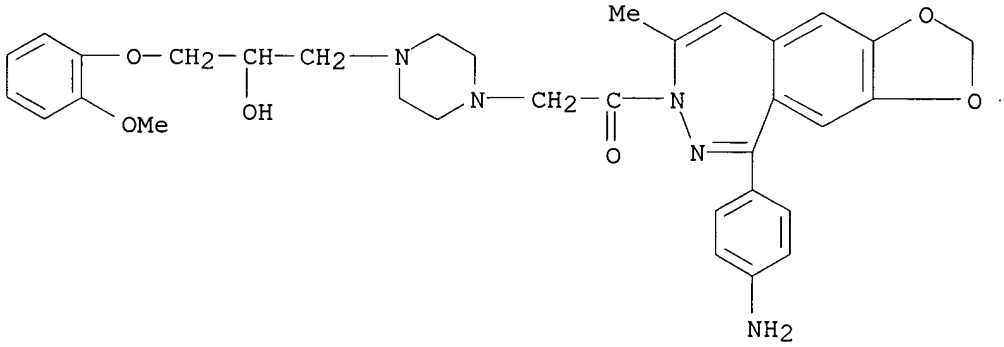
RN 220670-18-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]acetyl]-8-methyl- (9CI) (CA INDEX NAME)



RN 220670-19-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[[4-(2-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl- (9CI) (CA INDEX NAME)

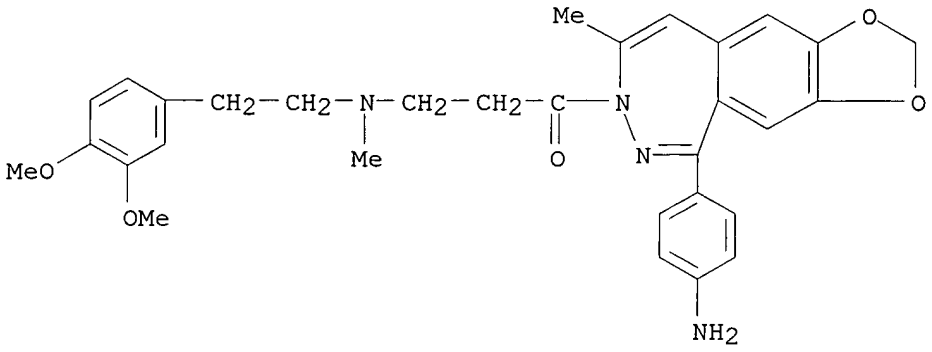


RN 220670-20-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[[4-[2-hydroxy-3-(2-methoxyphenoxy)propyl]-1-piperazinyl]acetyl]-8-methyl- (9CI) (CA INDEX NAME)

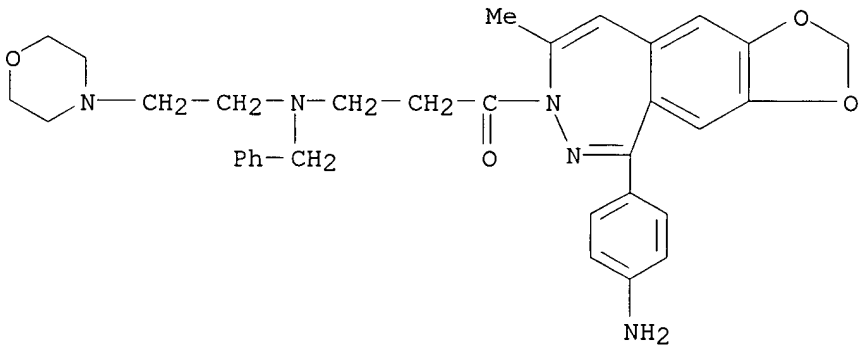


RN 220670-21-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[3-[[2-(3,4-

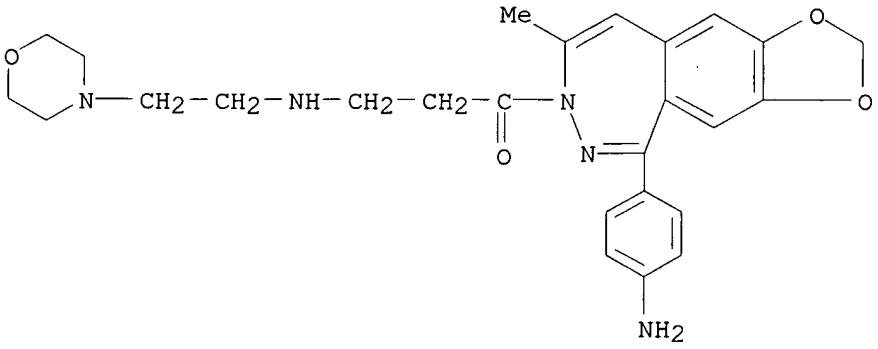
dimethoxyphenyl)ethyl]methylamino]-1-oxopropyl]-8-methyl- (9CI) (CA INDEX NAME)



RN 220670-22-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8-methyl-7-[3-[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]-1-oxopropyl]- (9CI) (CA INDEX NAME)

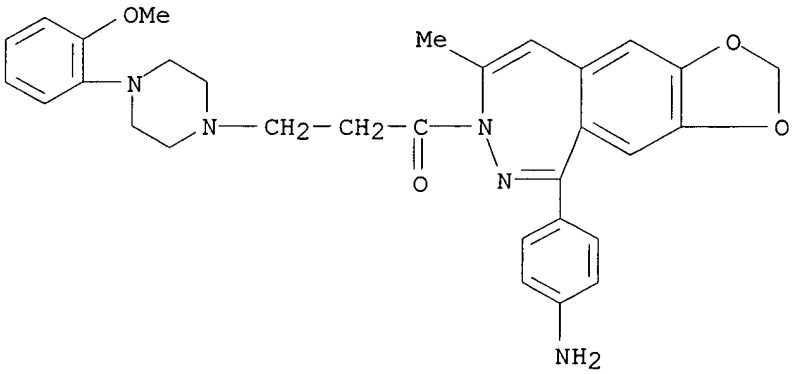


RN 220670-24-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8-methyl-7-[3-[[2-(4-morpholinyl)ethyl]amino]-1-oxopropyl]- (9CI) (CA INDEX NAME)

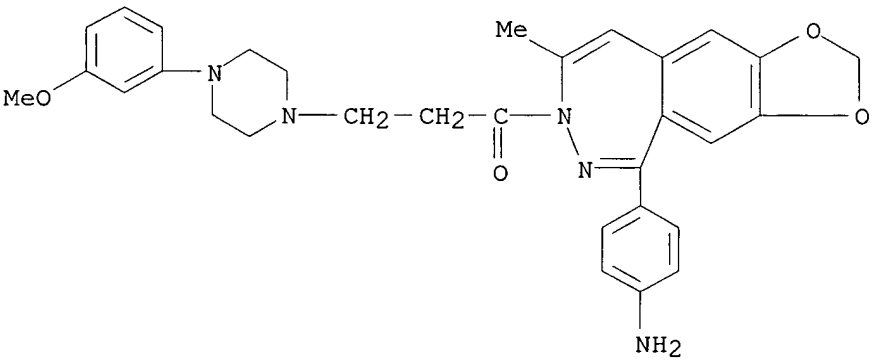


RN 220670-25-7 CAPLUS

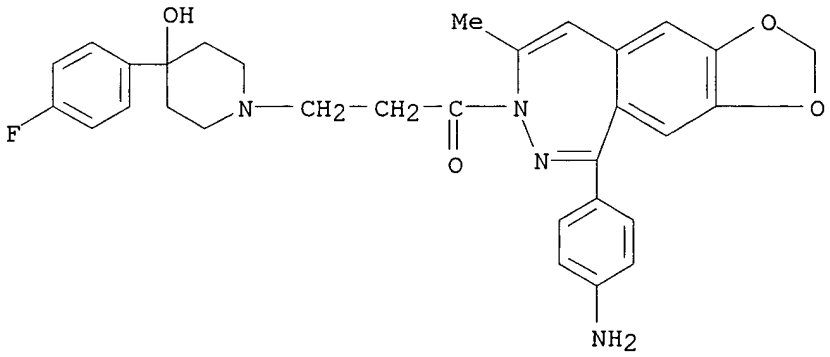
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[3-[4-(2-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-8-methyl- (9CI) (CA INDEX NAME)



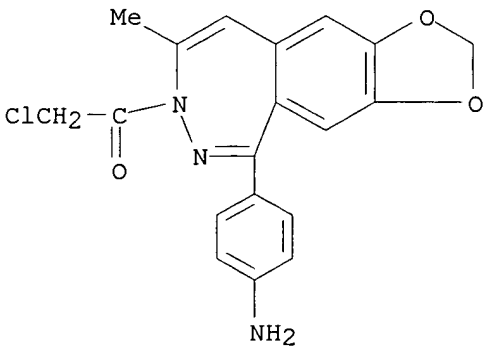
RN 220670-27-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[3-[4-(3-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-8-methyl- (9CI) (CA INDEX NAME)



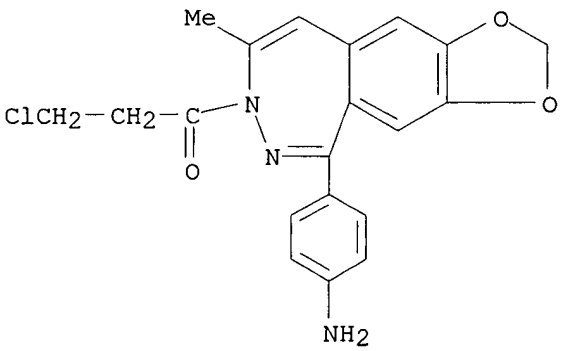
RN 220670-28-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[3-[4-(4-fluorophenyl)-4-hydroxy-1-piperidinyl]-1-oxopropyl]-8-methyl- (9CI) (CA INDEX NAME)



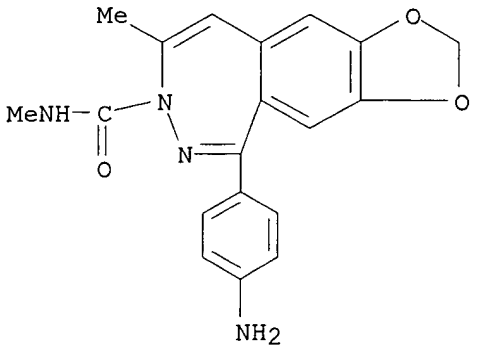
RN 220670-29-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-(chloroacetyl)-8-methyl- (9CI) (CA INDEX NAME)



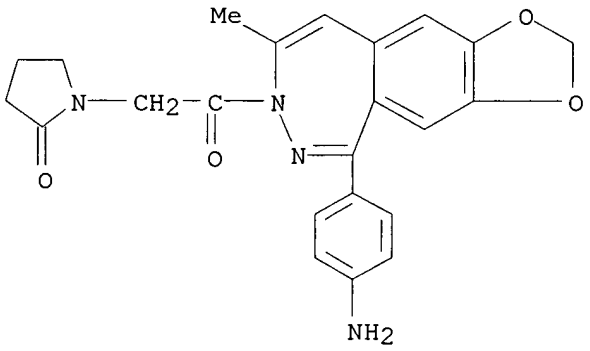
RN 220670-31-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-(3-chloro-1-oxopropyl)-8-methyl- (9CI) (CA INDEX NAME)



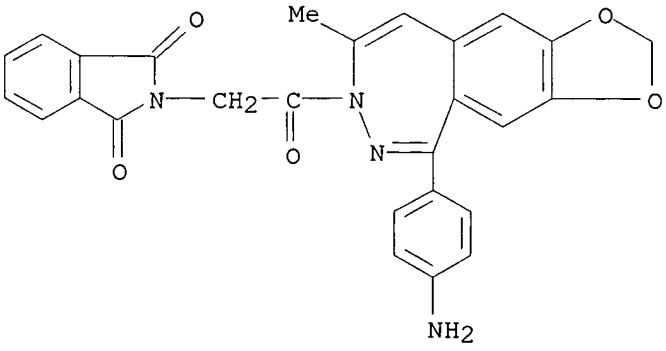
RN 220670-32-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N,8-dimethyl- (9CI) (CA INDEX NAME)



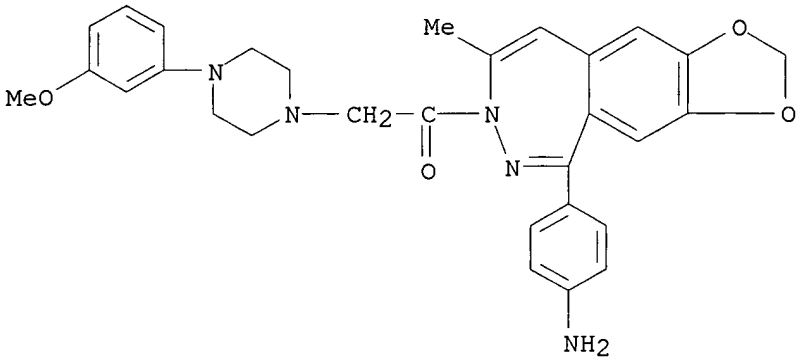
RN 220670-33-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8-methyl-7-[(2-oxo-1-pyrrolidinyl)acetyl]- (9CI) (CA INDEX NAME)



RN 220670-34-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8-methyl- (9CI) (CA INDEX NAME)



RN 220670-36-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[[4-(3-methoxyphenyl)-1-piperazinyl]acetyl]-8-methyl- (9CI) (CA INDEX NAME)

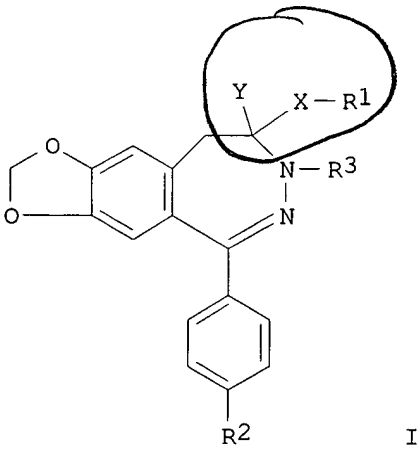


RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1999:126903 CAPLUS
DN 130:196674
TI Preparation of 8-substituted-9h-1,3-dioxolo/4,5-h//2,3/benzodiazepine derivatives as AMPA/kainate receptor inhibitors
IN Ratkai, Zoltan; Barkoczy, Jozsef; Schneider, Geza; Cselenyak, Judit; Simig, Gyula; Balazs, Laszlo; Doman, Imre; Greff, Zoltan; Kotay, Nagy Peter; Seres, Peter; Szabo, Geza; Gacsalyi, Istvan; Gigler, Gabor; Gyertyan, Istvan; Levay, Gyorgy; Kovacs, Attila; Simo, Annamaria; Szabados, Tamas; Egyed, Andras; Vegh, Miklos; Tihanyi, Karoly
PA Egis Gyogyszergyar Rt., Hung.
SO PCT Int. Appl., 191 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9907707	A1	19990218	WO 1998-HU75	19980807
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9888181	A1	19990301	AU 1998-88181	19980807
AU 735490	B2	20010712		
EP 1003749	A1	20000531	EP 1998-939781	19980807
R: AT, BE, CH, DE, DK, ES, GB, GR, LI, NL, SE, PT, SI, LT, LV, FI, RO				
JP 2001512730	T2	20010828	JP 2000-506210	19980807
BR 9812120	A	20011120	BR 1998-12120	19980807
NO 2000000655	A	20000410	NO 2000-655	20000209
PRAI HU 1997-1380	A	19970812		
HU 1997-1381	A	19970812		
WO 1998-HU75	W	19980807		

OS MARPAT 130:196674
GI



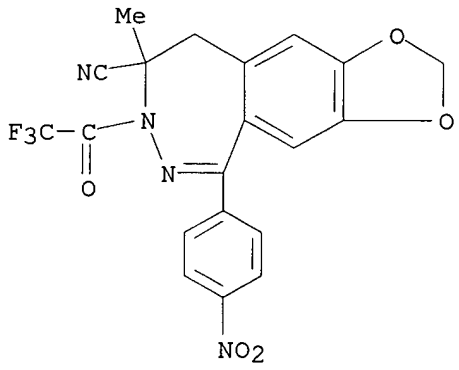
I

AB Title compds. [I; R1 = H, CH3, OH, alkoxy, alkylsulfonyloxy, NH2, NHMe, etc.; R2 = NO2, NH2; R3 = H, Ac, CO(CH2)2Cl alkyl, alkylcarbonyl, pyridylcarbonyl, phenoxycarbonyl, etc.; X = CO, CH2, CH2CH2; XR1 = CN, tetrazolyl, CHNOH, COOH, etc.; Y = H, CH3; YR3 = a valence bond and X represents a methylene group, then R1 is other than a hydrogen atom] are prepd. as AMPA/kainate receptor inhibitors and pharmaceutical compns. contg. these active substances are reported. Thus, I (YR3 = bond; XR1 = CONHEt; R2 = NO2) was prepd. from I (XR1 = CH3) with an oxidizing agent.

IT **220725-70-2P 220725-71-3P 220725-75-7P**
220725-76-8P 220725-77-9P 220725-78-0P
220725-79-1P 220725-80-4P 220725-81-5P
220725-82-6P 220725-84-8P 220725-85-9P
220725-86-0P 220726-06-7P
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of dioxolobenzodiazepines as AMPA/kainate receptor inhibitors)

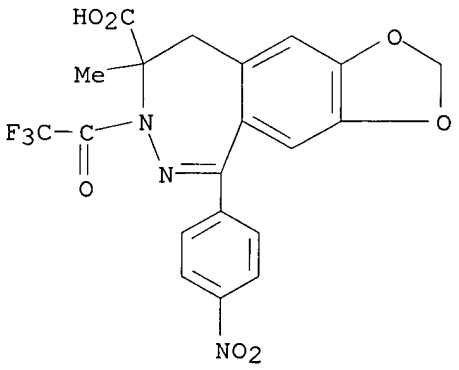
RN 220725-70-2 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)

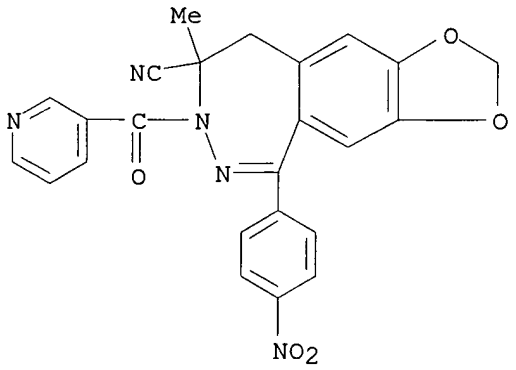


RN 220725-71-3 CAPLUS

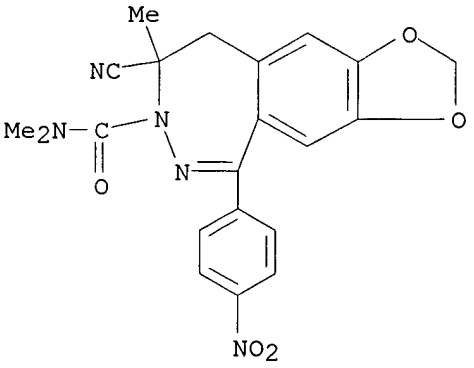
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carboxylic acid, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



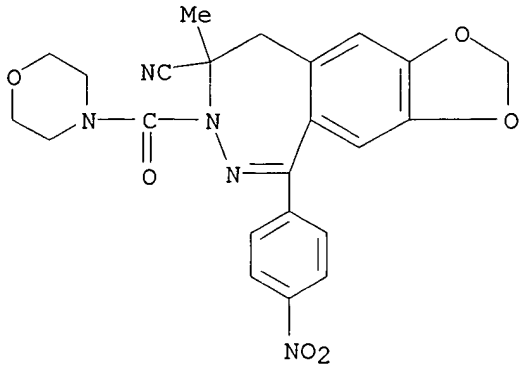
RN 220725-75-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(3-pyridinylcarbonyl)- (9CI) (CA INDEX NAME)



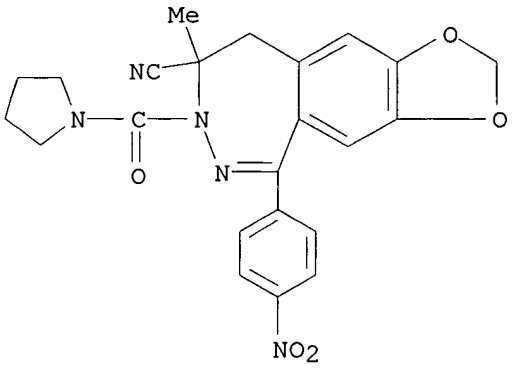
RN 220725-76-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8-cyano-8,9-dihydro-N,N,8-trimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



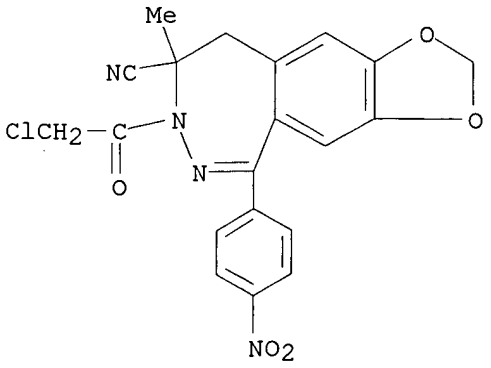
RN 220725-77-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-7-(4-morpholinylcarbonyl)-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



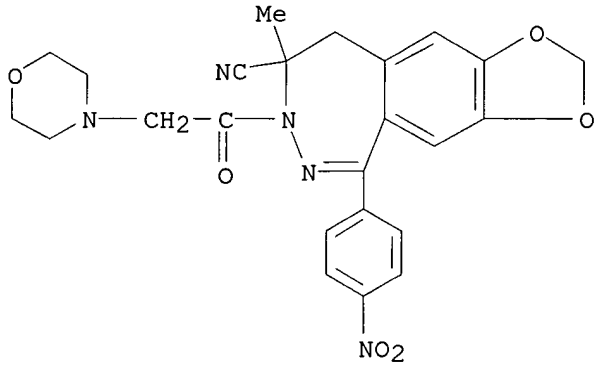
RN 220725-78-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



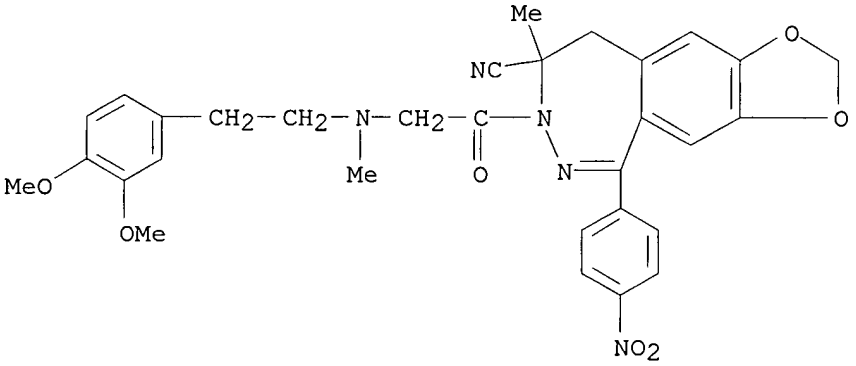
RN 220725-79-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



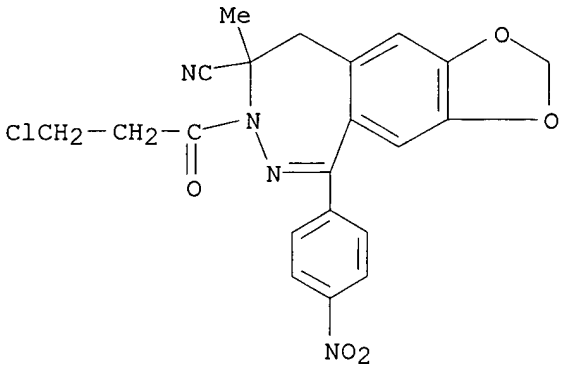
RN 220725-80-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-7-(4-morpholinylacetyl)-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



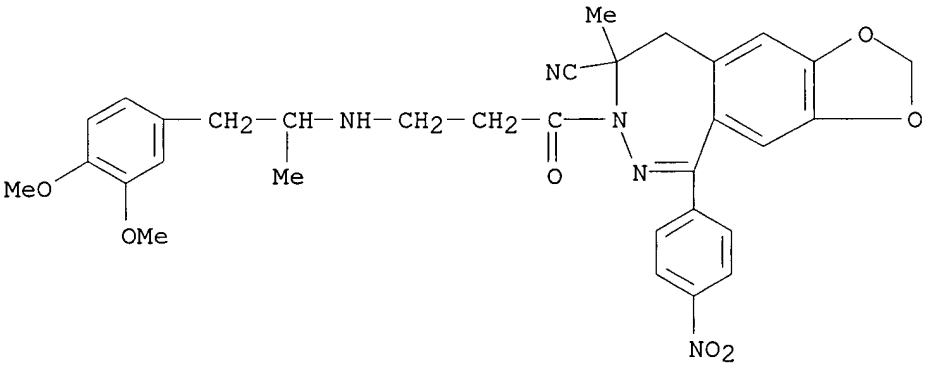
RN 220725-81-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



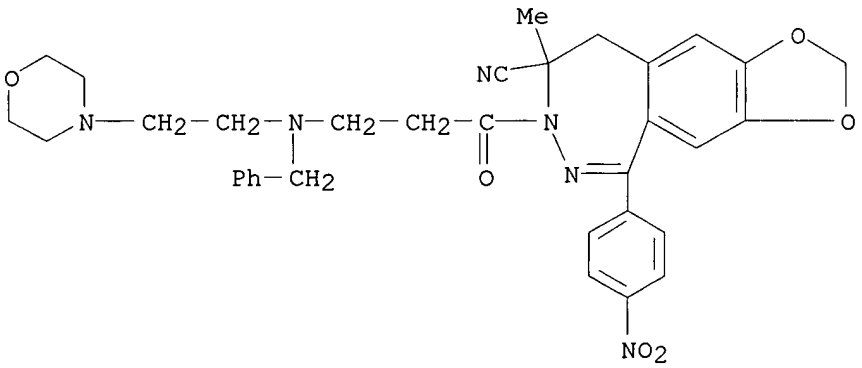
RN 220725-82-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-(3-chloro-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



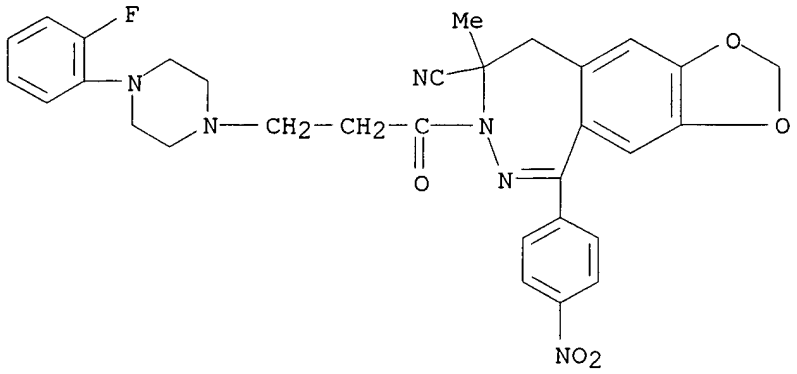
RN 220725-84-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[3-[[2-(3,4-dimethoxyphenyl)-1-methylethyl]amino]-1-oxopropyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



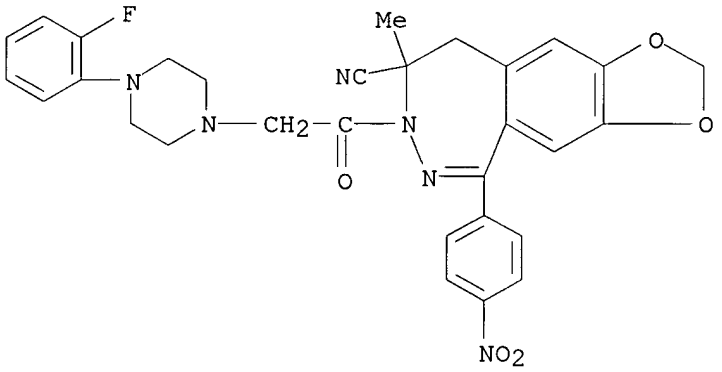
RN 220725-85-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-7-[3-[[2-(4-morpholinyl)ethyl](phenylmethyl)amino]-1-oxopropyl]-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 220725-86-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[3-[4-(2-fluorophenyl)-1-piperazinyl]-1-oxopropyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 220726-06-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 7-[[4-(2-fluorophenyl)-1-piperazinyl]acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



IT **220725-69-9P 220725-83-7P 220725-89-3P**
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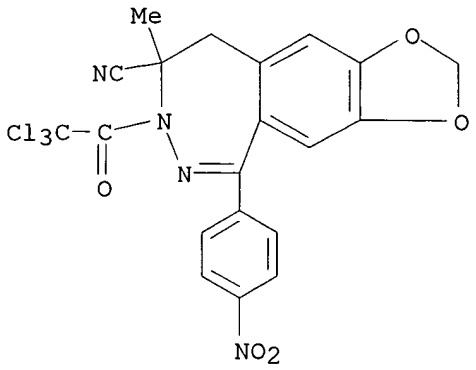
220726-02-3P 220726-05-6P 220726-07-8P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of dioxolobenzodiazepines as AMPA/kainate receptor inhibitors)
RN 220725-69-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trichloroacetyl)- (9CI) (CA INDEX NAME)



RN 220725-83-7 CAPLUS
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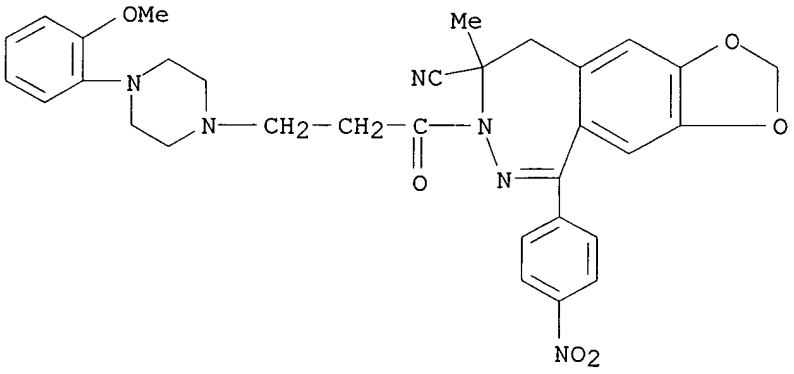
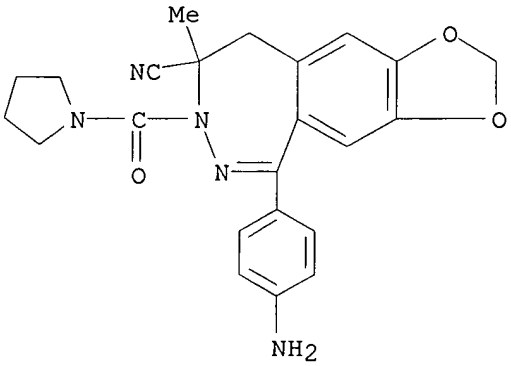
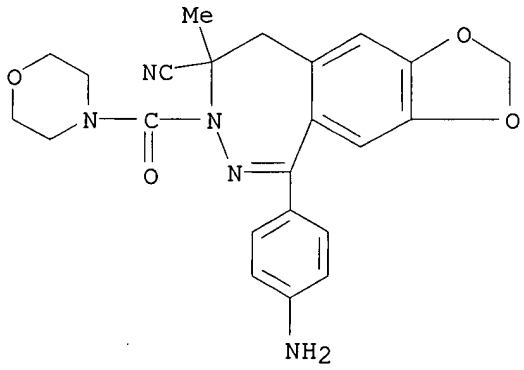


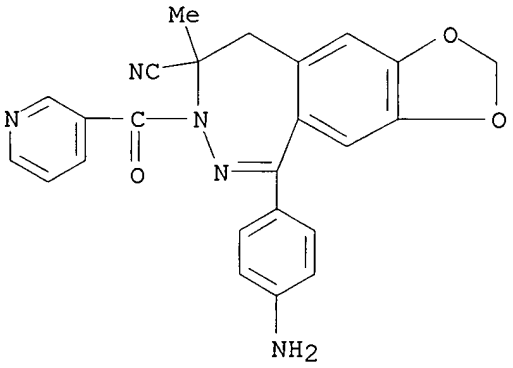
RN 220725-89-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)



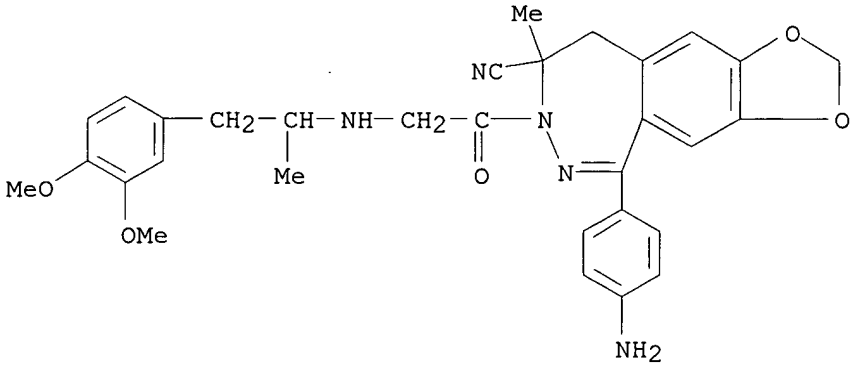
RN 220725-90-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(4-morpholinylcarbonyl)- (9CI) (CA INDEX NAME)



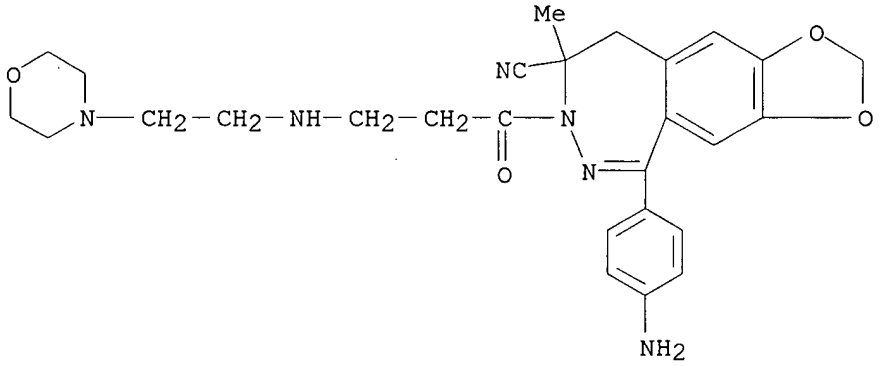
RN 220725-91-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(3-pyridinylcarbonyl)- (9CI) (CA INDEX NAME)



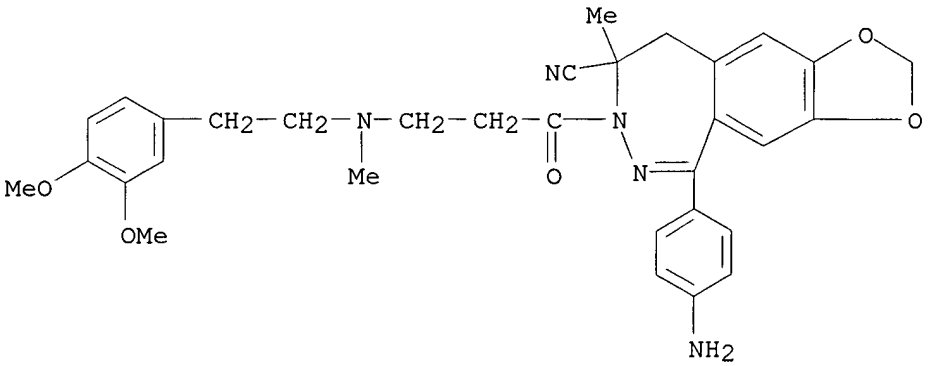
RN 220725-94-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[[[2-(3,4-dimethoxyphenyl)-1-methylethyl]amino]acetyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



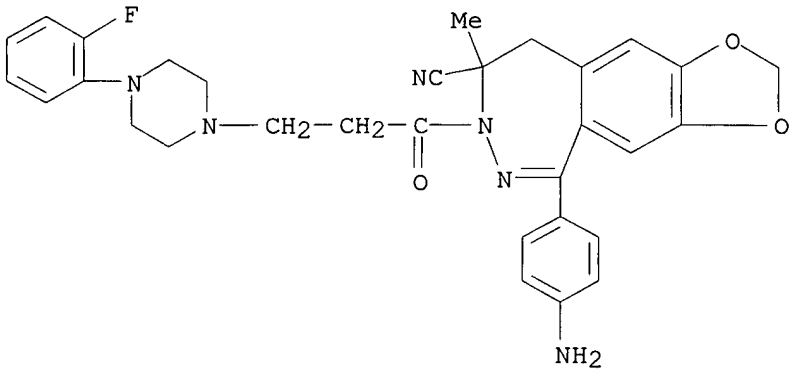
RN 220725-95-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[3-[[2-(4-morpholinyl)ethyl]amino]-1-oxopropyl]- (9CI) (CA INDEX NAME)



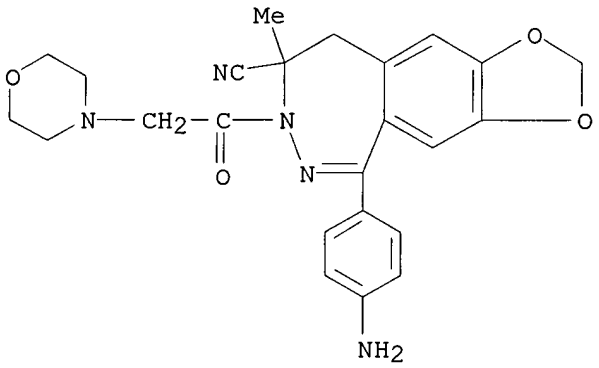
RN 220725-96-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-1-oxopropyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



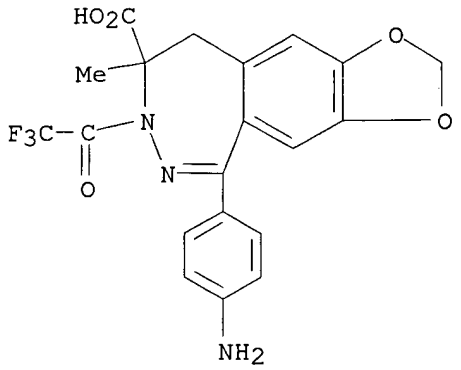
RN 220725-97-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[3-[4-(2-fluorophenyl)-1-piperazinyl]-1-oxopropyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



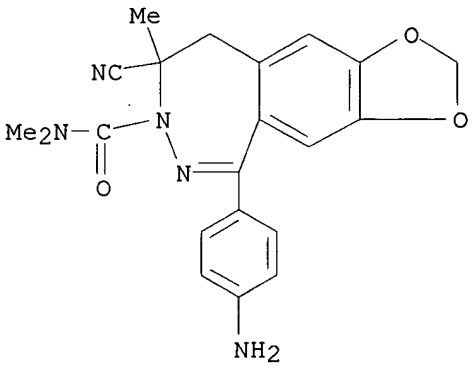
RN 220725-98-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(4-morpholinylacetyl)- (9CI) (CA INDEX NAME)



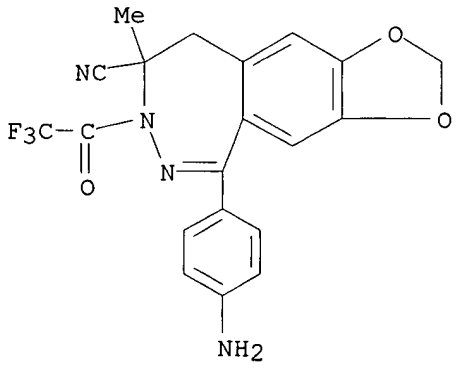
RN 220725-99-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carboxylic acid, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



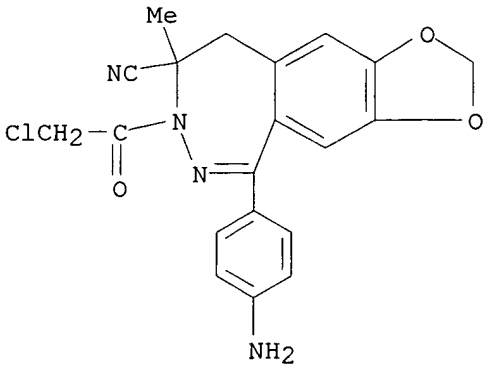
RN 220726-00-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8-cyano-8,9-dihydro-N,N,8-trimethyl- (9CI) (CA INDEX NAME)



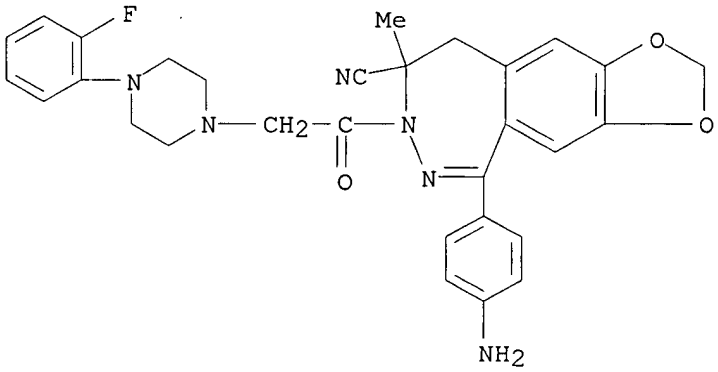
RN 220726-02-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



RN 220726-05-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-(chloroacetyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)

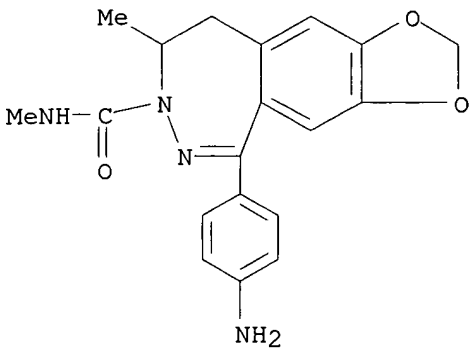


RN 220726-07-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-8-carbonitrile, 5-(4-aminophenyl)-7-[[4-(2-fluorophenyl)-1-piperazinyl]acetyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 9 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1998:779045 CAPLUS
DN 130:90453
TI Actions of kainate and AMPA selective glutamate receptor ligands on nociceptive processing in the spinal cord
AU Procter, Mark J.; Houghton, Andrea K.; Faber, E. S. Louise; Chizh, Boris A.; Ornstein, Paul L.; Lodge, David; Headley, P. Max
CS Department of Physiology, School of Medical Sciences, University of Bristol, University Walk, Bristol, BS8 1TD, UK
SO Neuropharmacology (1998), 37(10-11), 1287-1297
CODEN: NEPHBW; ISSN: 0028-3908 Oct. 1
PB Elsevier Science Ltd.
DT Journal
LA English
AB Kainate receptors expressing the GluR5 subunit of glutamate receptor are present at high levels on small diam. primary afferent neurons that are considered to mediate nociceptive inputs. This suggests that GluR5 selective ligands could be novel analgesic agents. The role of kainate receptors on C fiber primary afferents has therefore been probed using three compds. that are selective for homomeric GluR5 receptors. The agonist, ATPA, and the antagonists, LY 294486 and LY 382884, have been tested in four models of nociception: responses evoked by noxious stimulation of the periphery have been recorded electrophysiol. (1) from hemisected spinal cords from neonatal rats in vitro, (2) from single motor units in adult rats in vivo, (3) from dorsal horn neurons in adult rats in vivo, and (4) in hotplate tests with conscious mice. In some protocols comparisons were made with the AMPA selective antagonist GYKI 53655. The agonist ATPA reduced nociceptive reflexes in vitro, but failed to have effects in vivo. In all tests, the GluR5 antagonists reduced nociceptive responses but only at doses that also affected responses to exogenous AMPA. The AMPA antagonist reduced nociceptive responses at doses causing relatively greater redns. of responses to exogenous AMPA. The results indicate that GluR5 selective ligands do reduce spinal nociceptive responses, but they are not strongly analgesic under these conditions of acute nociception.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(kainate and AMPA selective glutamate receptor ligands action on nociceptive processing in spinal cord of rats and mice)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



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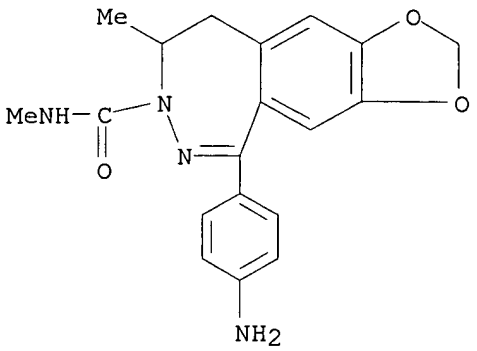
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1998:779039 CAPLUS
DN 130:137331
TI Pharmacological differentiation of kainate receptors on neonatal rat spinal motoneurons and dorsal roots
AU Thomas, Nicola K.; Hawkins, Lynda M.; Miller, Jacqueline C.; Troop, Helen M.; Roberts, Peter J.; Jane, David E.
CS Department of Pharmacology, School of Medical Sciences, University of Bristol, Bristol, BS8 1TD, UK
SO Neuropharmacology (1998), 37(10-11), 1223-1237
CODEN: NEPHBW; ISSN: 0028-3908
PB Elsevier Science Ltd.
DT Journal
LA English
AB The objectives of this study, conducted on neonatal rat spinal cord and dorsal roots in vitro, were to characterize the actions of a range of willardiine analogs on GluR5-contg. kainate receptors present in dorsal roots, to det. whether GluR5-contg. receptors are also present on motoneurons, and to differentiate responses mediated by kainate receptors from those mediated by AMPA receptors on motoneurons. (S)-5-Trifluoromethyl-willardiine, (S)-5-iodowillardiine, (S)-5-iodo-6-azawillardiine and ATPA were found to be potent agonists of kainate receptors on dorsal roots (EC50 values 0.108 .+-. 0.002, 0.127 .+-. 0.010, 0.685 .+-. 0.141 and 1.3 .+-. 0.3 .mu.M, resp.) being more potent but of lower efficacy than kainate (EC50 value 14.8 .+-. 1.8 .mu.M). (S)-5-Iodo-6-azawillardiine blocked kainate-induced depolarizations of the dorsal root, probably via its desensitizing action. Kainate-induced responses of dorsal roots were weakly antagonized by (RS)-3,5-dicarboxyphenylglycine (DCPG) (apparent KD 1.5 .+-. 0.4 mM). Kainate receptors contg. GluR5 subunits do not appear to be present on motoneurons since (RS)-3,5-DCPG (1 mM) potentiated rather than antagonized kainate-induced depolarizations of motoneurons. Although (S)-5-iodowillardiine (a potent and selective agonist at GluR5-contg. kainate receptors) depolarized motoneurons (EC50 value 5.8 .+-. 0.6 .mu.M), such depolarizations were antagonized by both (RS)-3,4- and (RS)-3,5-DCPG, which are selective AMPA receptor antagonists at motoneurons, showing a KD value of 73 .mu.M (Schild slope, 0.96 .+-. 0.09) and an apparent KD value of 123 .+-. 38 .mu.M, resp. This accords with the previously reported activity of willardiine analogs at AMPA receptors. Since neither (RS)-3,4- nor (RS)-3,5-DCPG antagonized kainate-induced motoneuronal depolarizations but cyclothiazide enhanced and GYKI53655 blocked these responses it is possible that a component of the kainate response may be mediated by a population of DCPG-insensitive AMPA receptors on motoneurons. However, it is also possible that a population of kainate receptors other than those contg. GluR5 subunits, are responsible for these effects. The new compds. introduced in this study are likely to be useful tools for studying the physiol. role of kainate receptors in CNS function.
IT **143692-48-2**, GYKI53655
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(pharmacol. differentiation of kainate and AMPA receptors on neonatal rat spinal motoneurons and dorsal roots and willardiine analogs as tools for studying kainate receptors)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



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RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

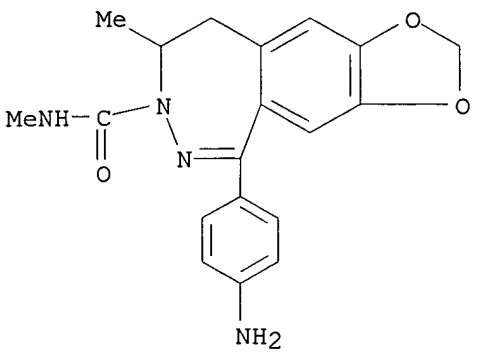
L14 ANSWER 11 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1998:490526 CAPLUS
DN 129:131257
TI Treatment of neurotoxicity in Alzheimer's disease by .beta.-amyloid peptides
IN Ingram, Vernon M.; Blanchard, Barbara J.
PA Massachusetts Institute of Technology, USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9830229	A1	19980716	WO 1998-US653	19980109
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1015013	A1	20000705	EP 1998-902522	19980109
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1997-35847P	P	19970110		
	US 1997-960188	A	19971029		
	WO 1998-US653	W	19980109		

AB The invention involves identification of a mechanism of .beta.-amyloid peptide cytotoxicity, which enables treatment of conditions caused by .beta.-amyloid peptide aggregates by administration of compds. which antagonize the mechanism of cytotoxicity. The invention includes the identification and isolation of compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates. The compds. include isolated peptides which were selected for their ability to form a complex with a .beta.-amyloid peptide, or are derived from peptides so selected. Methods for treating conditions resulting from neurotoxic .beta.-amyloid peptide aggregates and pharmaceutical prepns. are provided. Also provided are methods for selecting addnl. compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates.

IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of neurotoxicity in Alzheimer's disease by .beta.-amyloid peptides)

RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



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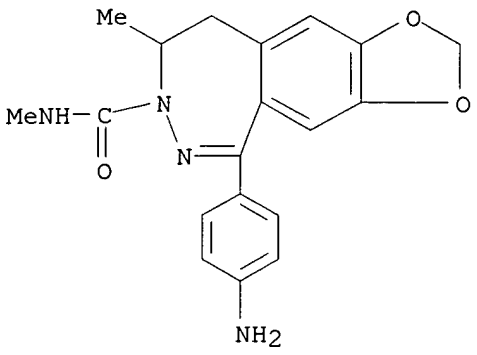
L14 ANSWER 12 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1998:450597 CAPLUS
DN 129:184532
TI AMPA receptor mediated excitotoxicity in neocortical neurons is developmentally regulated and dependent upon receptor desensitization
AU Jensen, J. B.; Schousboe, A.; Pickering, D. S.
CS PharmaBiotec Research Center, Department of Pharmacology, The Royal Danish School of Pharmacy, Copenhagen, DK-2100, Den.
SO Neurochem. Int. (1998), 32(5-6), 505-513
CODEN: NEUIDS; ISSN: 0197-0186
PB Elsevier Science Ltd.
DT Journal
LA English
AB AMPA (.alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid) excitotoxicity was examd. in cultured neocortical neurons using the redn. of 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) to measure cell viability. Neurons were exposed to AMPA at different culture periods during development of the neurons. In order to describe the pharmacol. of AMPA-mediated toxicity, several glutamate receptor antagonists were used: MK-801, NS 394, NBQX, GYKI 52466, GYKI 53405 and GYKI 53655. Increased excitotoxicity was obsd. when cortical neurons cultured for 5, 8 and 12 days in vitro (DIV) were exposed to a high concn. of AMPA (500 .mu.M) for 6 h. However, only at DIV 12 was part of the toxicity mediated directly through AMPA receptors since 10 .mu.M MK-801 blocked all AMPA toxicity at DIV 5 and 8, but only some of the AMPA response at DIV 12. This indicated that NMDA receptors were being activated, causing some of the obsd. toxicity. The high dose of AMPA was not sufficient to damage all neurons since 59% remained viable after exposure to AMPA even for neurons that were cultured for 12 DIV. Since it is known that both glutamate and AMPA activate AMPA receptors with a fast and rapidly desensitizing response, this could explain the relatively low toxicity produced by 500 .mu.M AMPA. This was investigated by blocking AMPA receptor desensitization with cyclothiazide. Using a lower concn. (25 .mu.M) of AMPA, addn. of 50 .mu.M cyclothiazide increased the AMPA induced excitotoxicity in cultured cortical neurons at all DIV except for DIV 2. This combination of AMPA + cyclothiazide yielded 77% cell death for DIV 12 cultures. In contrast to the results obsd. with 500 .mu.M AMPA, the neurotoxicity mediated directly by AMPA receptors when desensitization was blocked was seen as early as 5 DIV since 10 .mu.M MK-801 did not completely block the response whereas 10 .mu.M NBQX did. The 2,3-benzodiazepine GYKI compds., which have been reported to be selective non-competitive AMPA receptor antagonists, were here obsd. to block the AMPA toxicity with the following rank order: GYKI 53655 > GYKI 52466 .gtoreq. GYKI 53405, which is in agreement with their published potencies.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(AMPA receptor mediated excitotoxicity in neocortical neurons is developmentally regulated and dependent upon receptor desensitization)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



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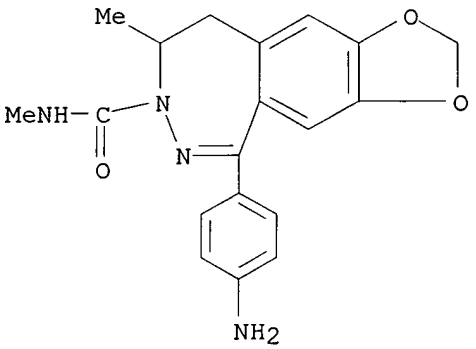
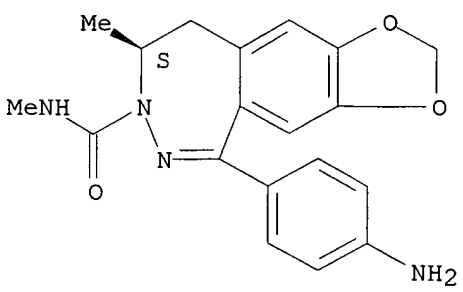
L14 ANSWER 13 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:707922 CAPLUS
DN 128:43739
TI The non-competitive AMPA antagonist LY 300168 (GYKI 53655) attenuates AMPA-induced hippocampal injury in neonatal rodents
AU Liu, X.-H.; Wang, P.; Barks, J. D. E.
CS Department of Pediatrics, University of Michigan Medical Center, Ann Arbor, MI, USA
SO Neurosci. Lett. (1997), 235(1,2), 93-97
CODEN: NELED5; ISSN: 0304-3940
PB Elsevier
DT Journal
LA English
AB In contrast with the neuroprotective efficacy of competitive and non-competitive N-methyl-D-aspartate (NMDA) antagonists vs. NMDA neurotoxicity, reported neuroprotective effects of non-NMDA antagonists in limiting .alpha.-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA) toxicity have been less robust. We tested the effect of the non-competitive AMPA receptor antagonist LY 300168 (GYKI 53655; E. Lilly) (0.25 or 2.5 mg/kg per dose i.p. .times.3 doses vs. vehicle) on AMPA-induced excitotoxic injury in postnatal day 7 (P7) rats. To assess specificity, we tested the effect of LY 300168 (2.5 mg/kg per dose .times.3 doses) on NMDA-induced excitotoxic injury. P7 rats received right intrahippocampal injections of either (S)-AMPA (2.5 nmol, n = 67) or NMDA (12.5 nmol, n = 11). Injection of AMPA resulted in right hippocampal atrophy with pyramidal cell loss. LY 300168 treatment produced dose-dependent attenuation of AMPA-induced right hippocampal injury; based on comparisons with left hippocampal vols., 2.5 nmol AMPA resulted in 42.+-.3% (mean.+-.SEM) right hippocampal vol. loss in controls, but only 10.+-.5% after LY 300168 2.5 mg/kg per dose (P<0.001; ANOVA). LY 300168 had no effect on NMDA-induced hippocampal injury. The data support the hypothesis that drugs that allosterically regulate AMPA receptor activity can modulate the response of immature brain to AMPA-mediated injury.
IT **143692-18-6**, LY 300168
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(AMPA antagonist LY 300168 attenuates AMPA-induced hippocampal injury in neonates)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



L14 ANSWER 14 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:646583 CAPLUS
DN 127:341510
TI Apparent antinociceptive and anti-inflammatory effects of GYKI 52466
AU Szekely, Jozsef I.; Kedves, Rita; Mate, Ildiko; Toeroek, Katalin; Tarnawa, Istvan
CS Institute for Drug Research, P.O. Box 82, Budapest, 1325, Hung.
SO Eur. J. Pharmacol. (1997), 336(2/3), 143-154
CODEN: EJPHAZ; ISSN: 0014-2999
PB Elsevier
DT Journal
LA English
AB GYKI 52466 (1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-5H-2,3-benzodiazepine) was examd. in a battery of analgesia and anti-inflammatory tests in rats and mice, resp. Its 3-N-acetyl (GYKI 53773) and 3-N-methylcarbamoyl (GYKI 53784) derivs. were also examd. in some assays. These 2,3-benzodiazepines, known as prototypic non-competitive antagonists of AMPA receptors, showed a peculiar profile in some routinely used antinociceptive tests. They were found fairly potent in rat tail flick and mouse phenylquinone writhing assays but the dose-response curves were rather shallow as compared to that of morphine. Their action is stereoselective i.e. the (+) isomers were found inactive, in agreement with the previous in vitro studies. Their antinociceptive effect could not be reversed by naloxone and the GYKI compds. did not potentiate significantly the morphine-induced analgesia. In the mouse hot plate assay, the 2,3-benzodiazepines were active only in doses inducing visible motor incapacitation. In rats, GYKI 52466 weakly reduced the hypersensitivity accompanying acute carrageenan edema. However, it potently inhibited the hyperalgesia during Freund adjuvant-induced chronic arthritis. In the latter assay,yes GYKI 52466 also attenuated the body wt. loss without altering the paw edema. The present findings confirm reports in the literature which indicate AMPA receptors may contribute to certain forms of pathol. hyperalgesia e.g. to that detectable in inflamed tissues.
IT **161832-69-5**, GYKI 53785 **161832-71-9**, GYKI 53784
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(apparent antinociceptive and anti-inflammatory effects of GYKI 52466 and its derivs. in relation to role of AMPA receptors in hyperalgesia in inflammation)
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

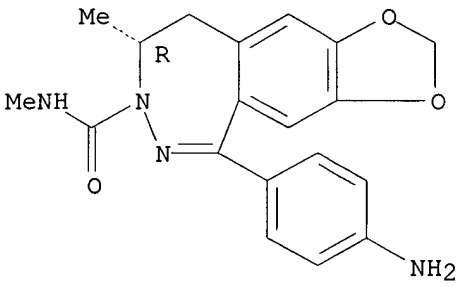
Absolute stereochemistry. Rotation (+).

Revised



RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L14 ANSWER 15 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:622824 CAPLUS
DN 127:262710
TI Stereoselective preparation of dihydro-2,3-benzodiazepine derivatives
IN Anderson, Benjamin A.; Hansen, Marvin M.; Varie, David L.; Vicenzi, Jeffrey T.; Zmijewski, Milton J.
PA Eli Lilly and Co., USA
SO U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 298,645, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5665878	A	19970909	US 1995-413036	19950328
	TW 390881	B	20000521	TW 1995-84107230	19950712
	TW 393485	B	20000611	TW 1995-84107231	19950712
	CA 2157234	AA	19960301	CA 1995-2157234	19950830
	FI 9504064	A	19960301	FI 1995-4064	19950830
	NO 9503396	A	19960301	NO 1995-3396	19950830
	EP 699677	A1	19960306	EP 1995-306051	19950830
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	AU 9530355	A1	19960314	AU 1995-30355	19950830
	AU 702658	B2	19990225		
	JP 08081468	A2	19960326	JP 1995-221570	19950830
	BR 9503845	A	19960416	BR 1995-3845	19950830
	HU 72644	A2	19960528	HU 1995-2545	19950830
	CN 1123282	A	19960529	CN 1995-116311	19950830
	ZA 9507278	A	19970228	ZA 1995-7278	19950830
	ZA 9507279	A	19970228	ZA 1995-7279	19950830
	ZA 9507280	A	19970228	ZA 1995-7280	19950830
	RU 2142465	C1	19991210	RU 1995-114550	19950830
	RU 2151149	C1	20000620	RU 1995-114549	19950830
	IL 115100	A1	20000726	IL 1995-115100	19950830
	EP 1157992	A1	20011128	EP 2001-114686	19950830
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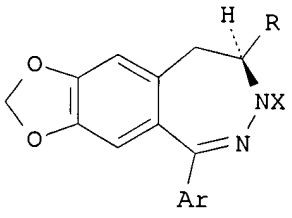
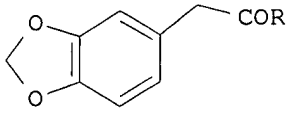
	US 5919954	A	19990706	US 1997-843307	19970414
	US 5986114	A	19991116	US 1999-260449	19990302
	US 6160133	A	20001212	US 1999-346795	19990702
PRAI	US 1994-298645	B2	19940831		
	US 1995-413029	A	19950328		
	US 1995-413036	A	19950328		
	EP 1995-930998	A3	19950830		
	US 1997-843307	A3	19970414		
	US 1999-260449	A3	19990302		

OS CASREACT 127:262710; MARPAT 127:262710
GI



I



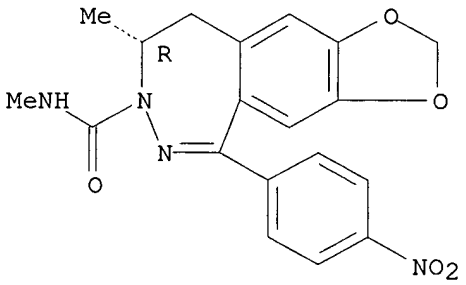
II

AB Title compds. [I; R = H, alkyl; X = H, alkyl, acyl, aryl, CO2H (deriv).; Ar = (substituted) aryl], were prepd. from aryl ketones (II; R as above) via asym. redn., reaction with an arylaldehyde to give an isochroman, oxidn., reaction with H2NNHX, and reaction with a sulfonyl halide or direct Mitsunobu cyclization. Thus, 3,4-methylenedioxyphenylacetone was fermented with Z. rouxii ATCC 14462 to give 85-90% (S)-.alpha.-methyl-1,3-benzodioxole-5-ethanol in 100% enantiomeric excess. This was heated with p-nitrobenzaldehyde and conc. HCl in PhMe to give 87-93% (5RS,7S)-7,8-dihydro-7-methyl-5-(4-nitrophenyl)-5H-1,3-dioxolo[4,5-g][2]benzopyran. The latter in Me2SO was bubbled with air and then treated with aq. NaOH to give (5RS,7S)-7,8-dihydro-7-methyl-5-(4-nitrophenyl)-5H-1,3-dioxolo[4,5-g][2]benzopyran-5-ol. Reflux of the latter with acetic hydrazide in conc. HCl gave (S)-acetic acid-[[6-(2-hydroxypropyl)-1,3-benzodioxol-5-yl](4-nitrophenyl)methylene]hydrazide. Treatment with MeSO2Cl/Et3N gave the methanesulfonyloxypropyl deriv., which was stirred with aq. NaOH in MeOH to give (R)-7-acetyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7H-1,3-dioxolo[4,5-H][2,3]benzodiazepine.

IT **161832-70-8P 161832-71-9P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(stereoselective prepn. of dihydro-2,3-benzodiazepine derivs.)

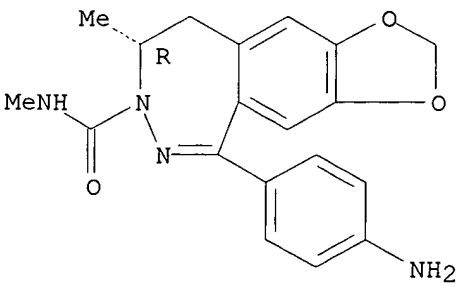
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

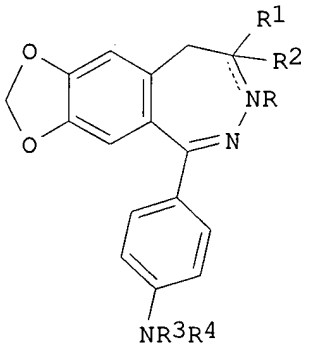
Absolute stereochemistry. Rotation (-).



L14 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:436580 CAPLUS
DN 127:108948
TI Preparation of N-acyl-2,3-benzodiazepine derivatives for treating acute and chronic neurodegenerative disorders.
IN Andrasi, Ferenc; Berzsenyi, Pal; Botka, Peter; Farkas, Sandor; Goldschmidt, Katalin; Hamori, Tamas; Korosi, Jeno; Moravcsik, Imre; Tarnawa, Istvan
PA Cyogyszerkutato Intezet Kft, Hung.
SO U.S., 22 pp. Cont.-in-part of U.S. Ser. No. 423,152, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5639751	A	19970617	US 1995-477801	19950607
	HU 59684	A2	19920629	HU 1990-8398	19901221
	HU 219778	B	20010730		
	US 5459137	A	19951017	US 1993-80604	19930621
PRAI	HU 1990-8398	A	19901221		
	US 1991-809361	B2	19911217		
	US 1993-48347	B2	19930415		
	US 1993-80604	A3	19930621		
	US 1995-423152	B2	19950417		

GI



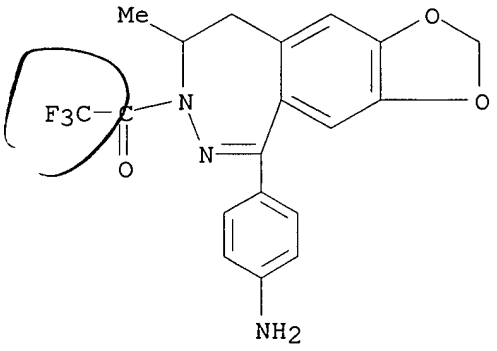
I

AB Title compds. [I; R = (substituted) alkanoyl, benzoyl, cyclopropanecarbonyl, alkylcarbamoyl, phenylcarbamoyl, null; R1 = H, null; R2 = alkyl; R1R2 = methylene; R3 = H, alkanoyl; R4 = H, (substituted) alkanoyl, benzoyl, palmitoyl, cyclopropanecarbonyl, alkylcarbamoyl, phenylcarbamoyl; dotted lines = optional double bonds; with a proviso], were prepd. I possess valuable central nervous system effects, particularly muscle relaxant, anticonvulsive and neuroprotective action. Thus, (-)-1-(4-aminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (prepn. given) inhibited synaptic potentials in rat hippocampal slices with IC50 = 3.9 .mu.M.

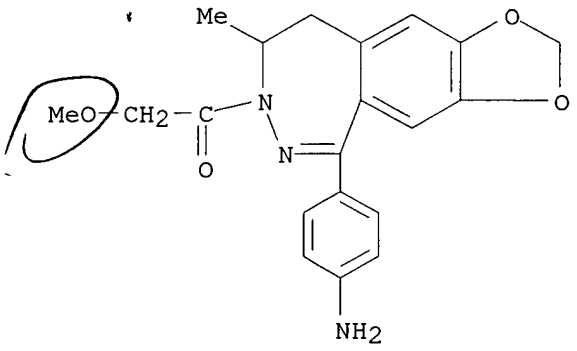
IT **143691-38-7P 143691-45-6P 143691-47-8P**
143691-55-8P 143691-57-0P 143691-62-7P
143691-65-0P 143691-71-8P 143691-88-7P
143691-89-8P 143691-90-1P 143691-91-2P
143691-93-4P 143692-02-8P 143692-04-0P

143692-05-1P 143692-07-3P 143692-09-5P
143692-12-0P 143692-13-1P 143692-18-6P
143692-19-7P 143692-21-1P 143692-26-6P
143692-32-4P 143692-35-7P 143692-36-8P
143692-37-9P 143692-38-0P 143692-48-2P
143692-51-7P 143692-52-8P 143715-46-2P
161832-68-4P 161832-69-5P 161832-70-8P
161832-71-9P 173087-57-5P 173087-61-1P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of N-acyl-2,3-benzodiazepine derivs. for treating acute and chronic neurodegenerative disorders)

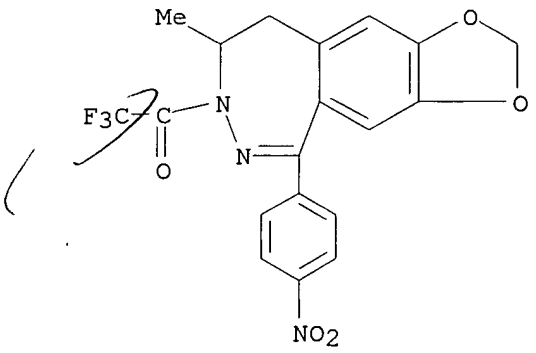
RN 143691-38-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



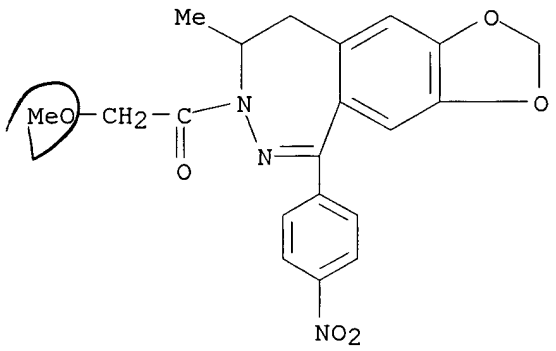
RN 143691-45-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)



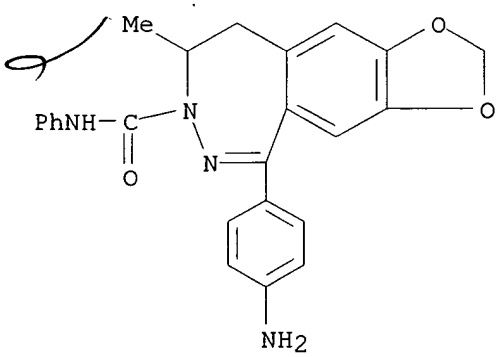
RN 143691-47-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



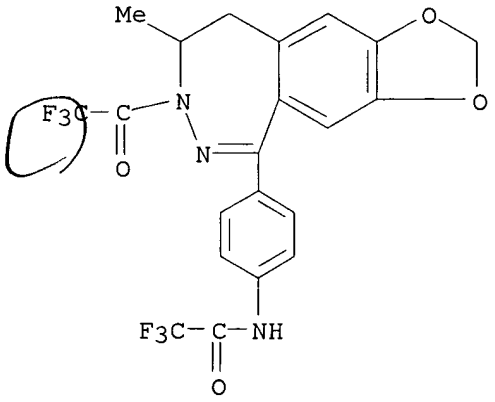
RN 143691-55-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(methoxyacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



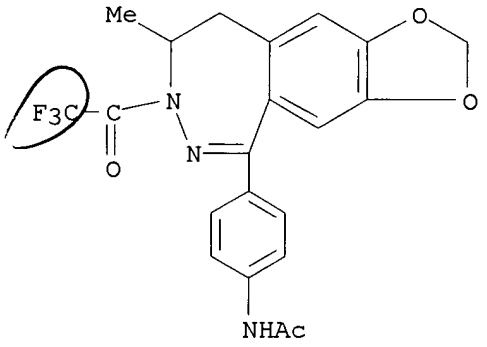
RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)



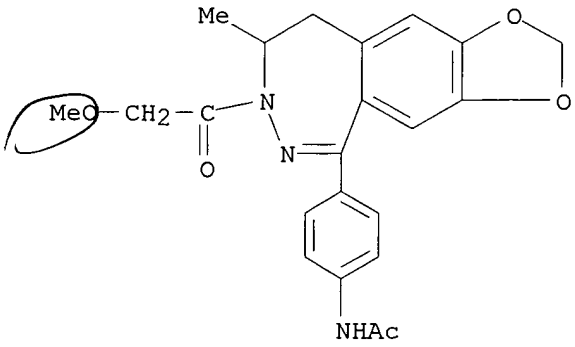
RN 143691-62-7 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



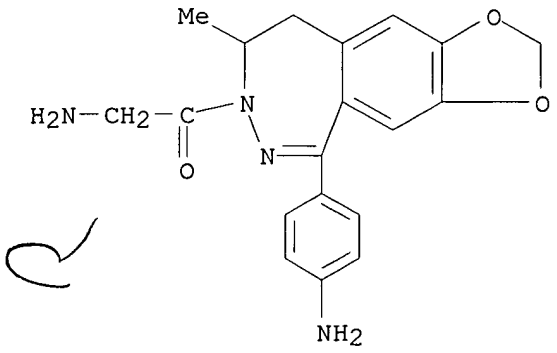
RN 143691-65-0 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 143691-71-8 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-7-(methoxyacetyl)-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



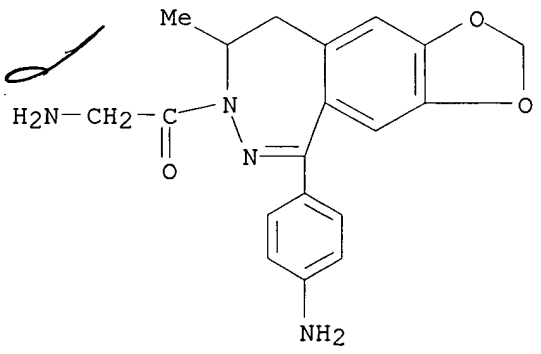
RN 143691-88-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-89-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

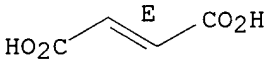
CRN 143691-88-7
CMF C19 H20 N4 O3



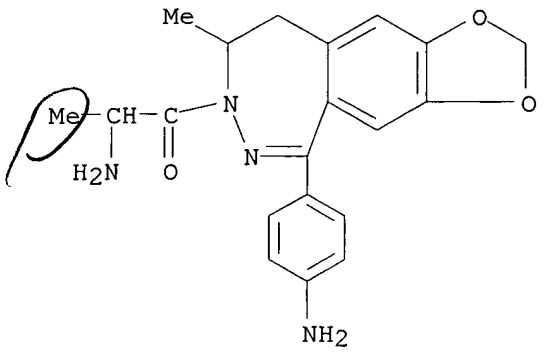
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



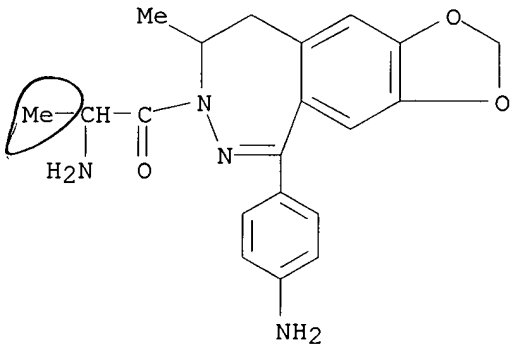
RN 143691-90-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-91-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

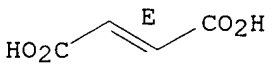
CRN 143691-90-1
CMF C20 H22 N4 O3



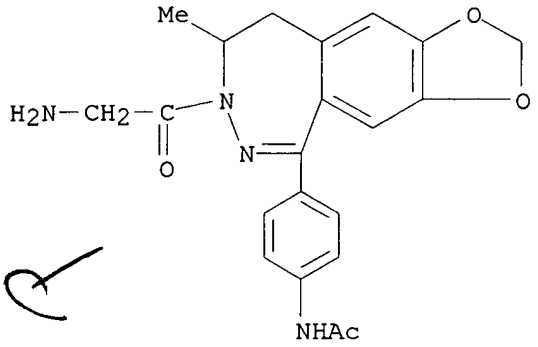
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

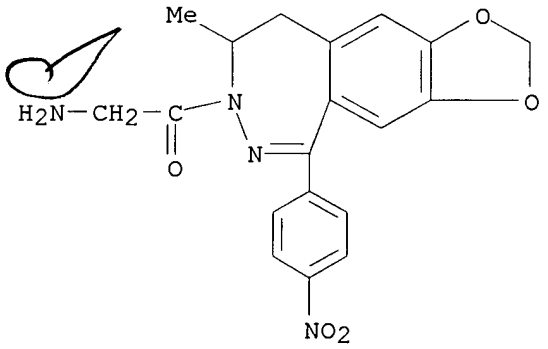
Double bond geometry as shown.



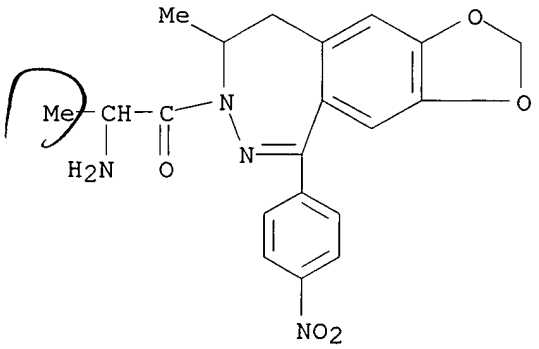
RN 143691-93-4 CAPLUS
CN Acetamide, N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



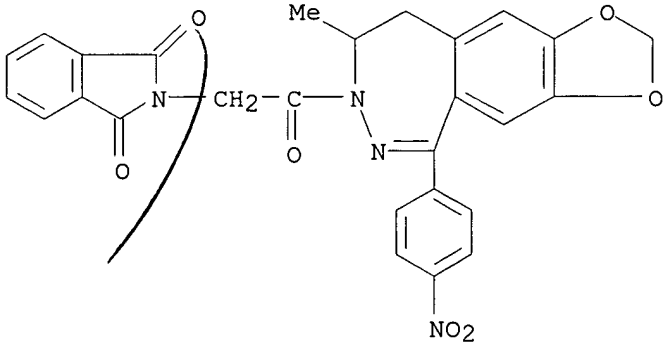
RN 143692-02-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



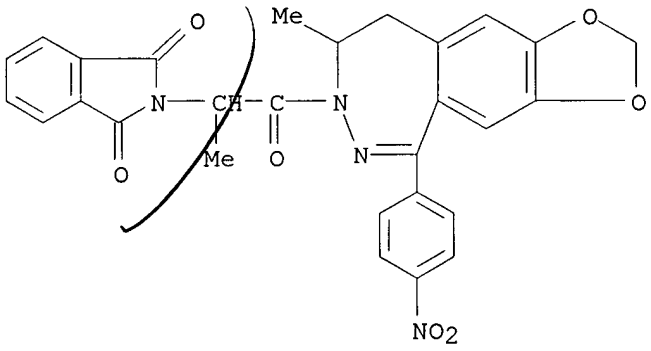
RN 143692-04-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



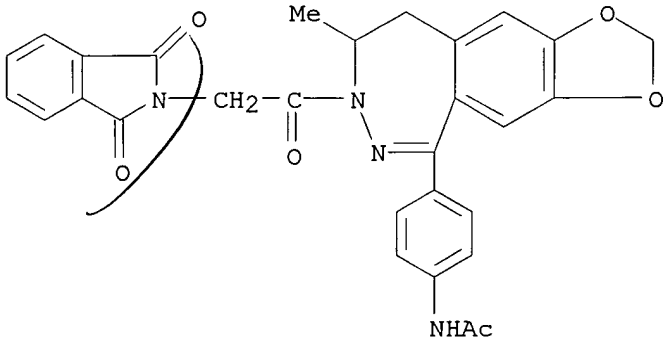
RN 143692-05-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



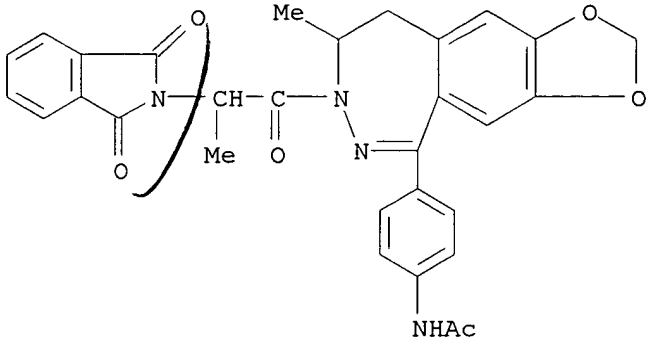
RN 143692-07-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-1-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



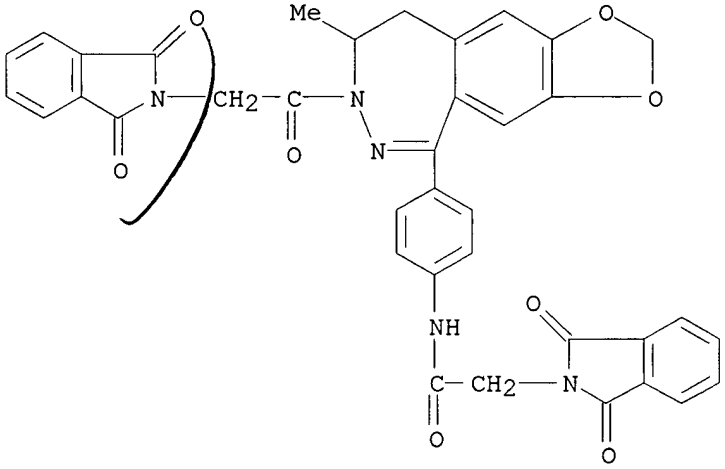
RN 143692-09-5 CAPLUS
CN Acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



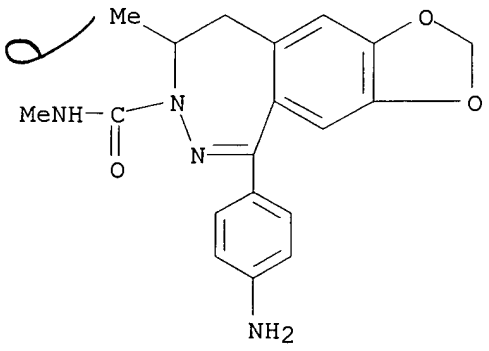
RN 143692-12-0 CAPLUS
CN Acetamide, N-[4-[7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



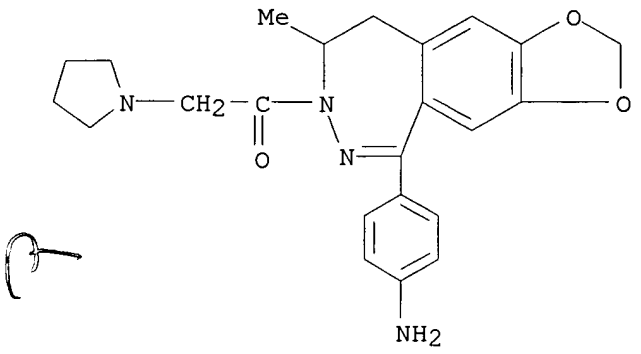
RN 143692-13-1 CAPLUS
CN 2H-Isoindole-2-acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



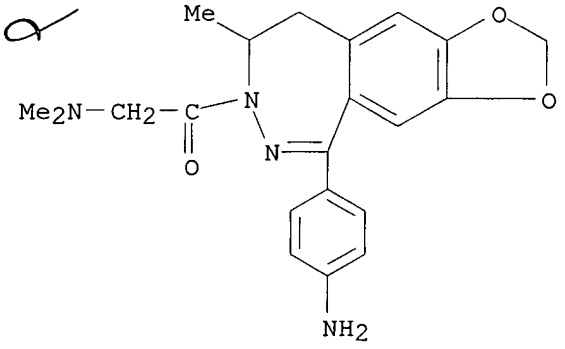
RN 143692-19-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-21-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

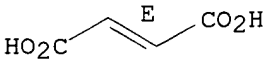
CRN 143692-20-0
CMF C21 H24 N4 O3



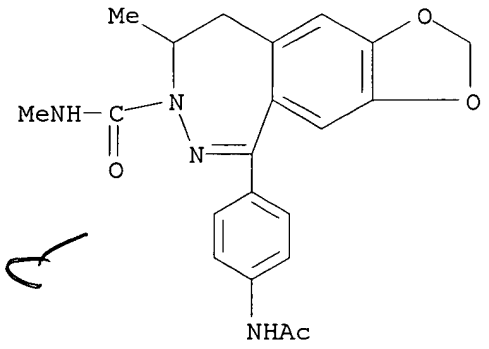
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

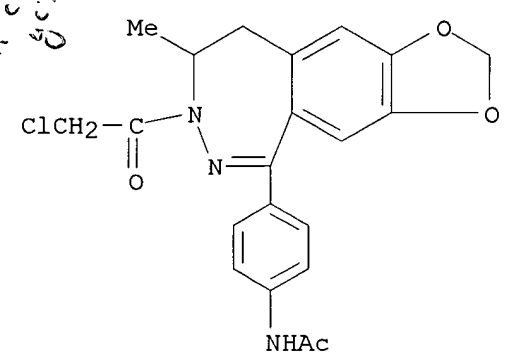
Double bond geometry as shown.



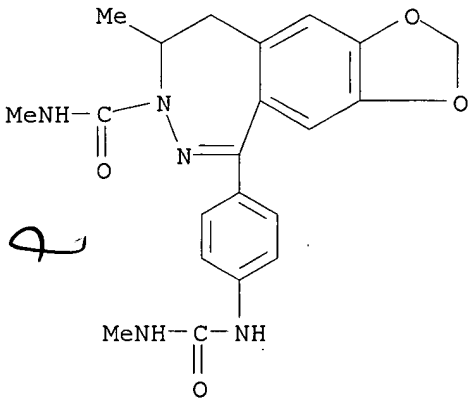
RN 143692-26-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-(acetylamino)phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



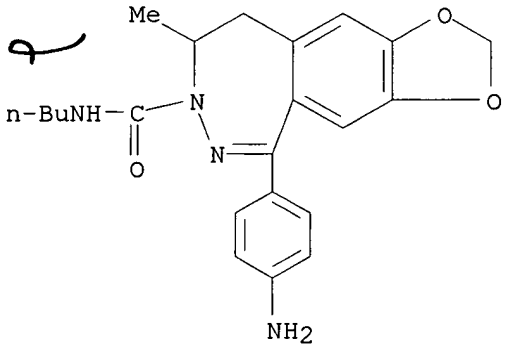
RN 143692-32-4 CAPLUS
CN Acetamide, N-[4-[7-(chloroacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



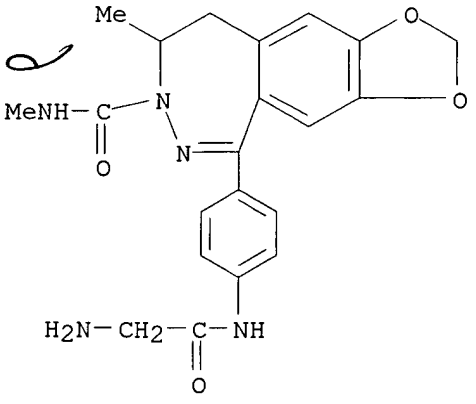
RN 143692-35-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-[4-[[(methylamino)carbonyl]amino]phenyl]- (9CI) (CA INDEX NAME)



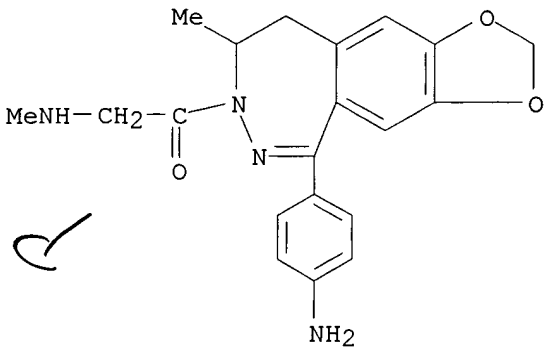
RN 143692-36-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



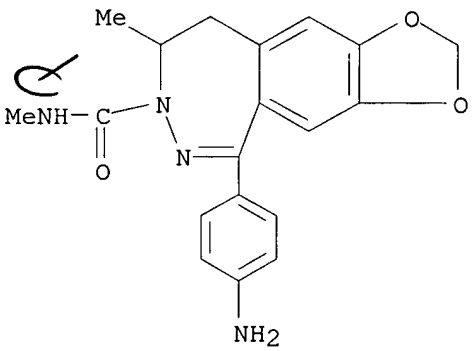
RN 143692-37-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[(aminoacetyl)amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RN 143692-38-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

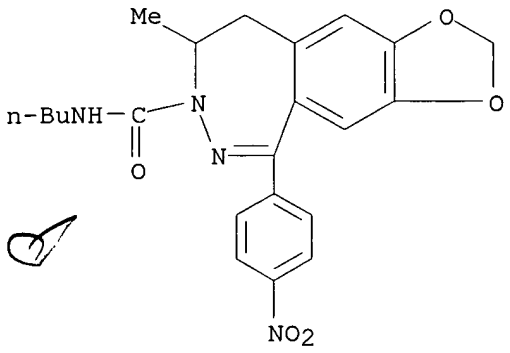


RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

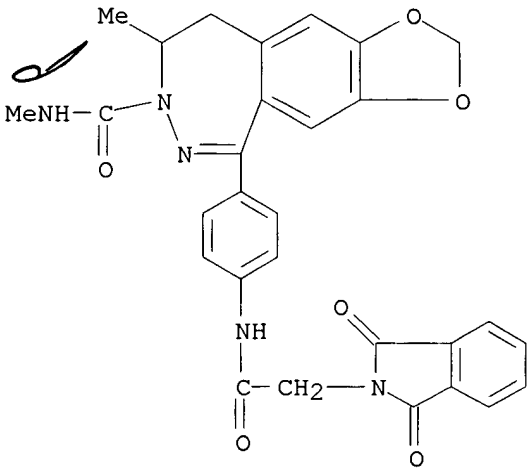


● HCl

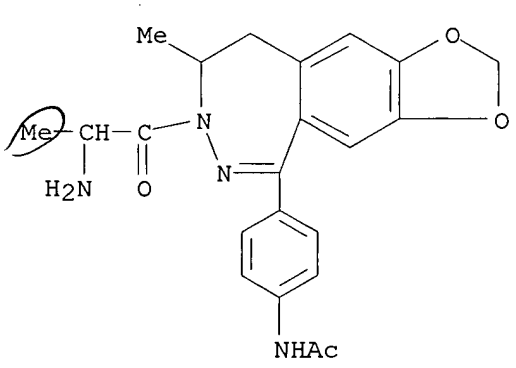
RN 143692-51-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-butyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 143692-52-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

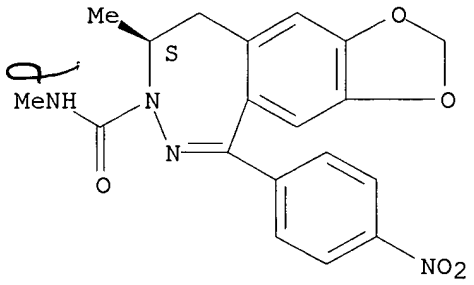


RN 143715-46-2 CAPLUS
CN Acetamide, N-[4-[7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



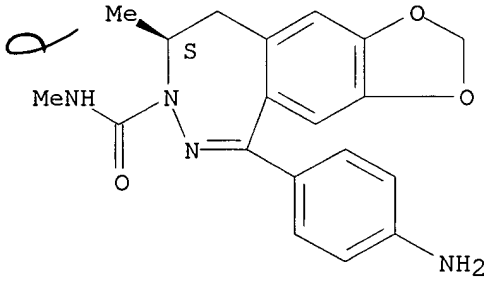
RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



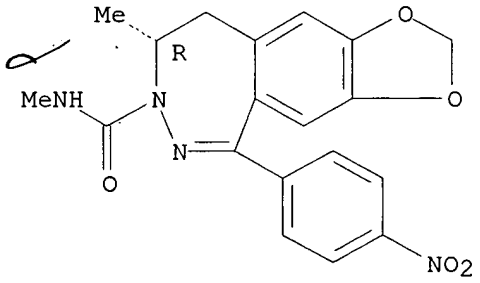
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



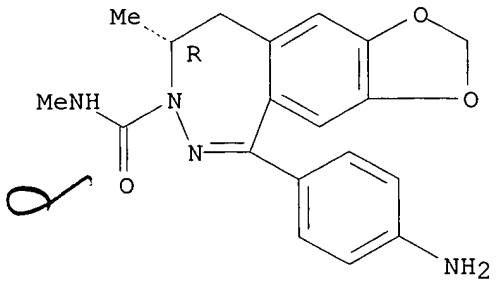
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

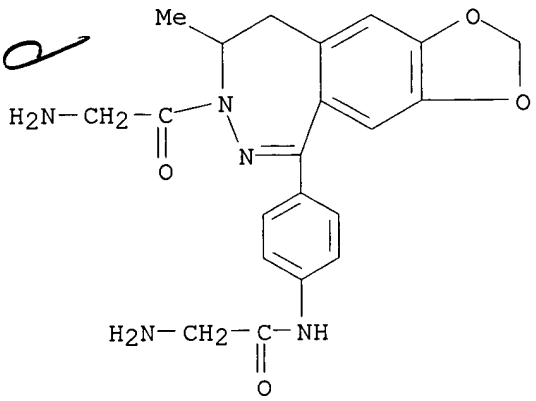


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

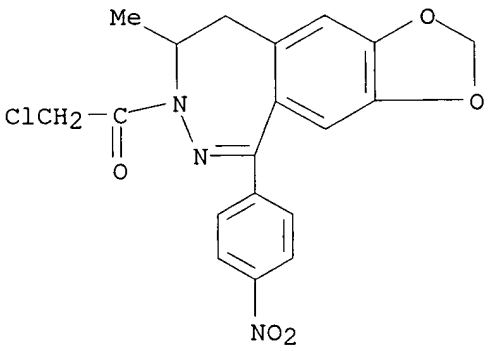
Absolute stereochemistry. Rotation (-).



RN 173087-57-5 CAPLUS
CN Acetamide, 2-amino-N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

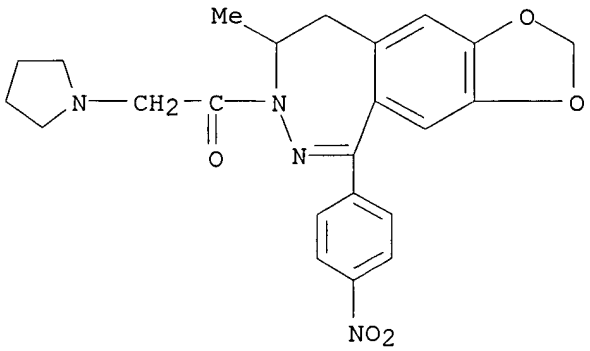


RN 173087-61-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

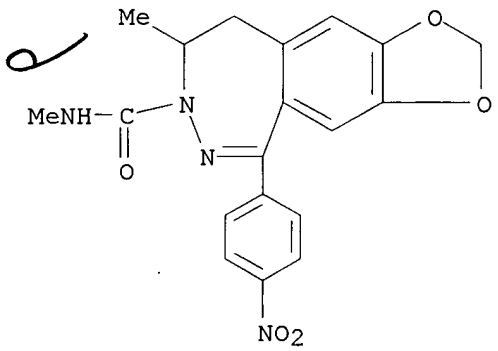


IT **143692-50-6P 173087-60-0P 173087-62-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of N-acyl-2,3-benzodiazepine derivs. for treating acute and chronic neurodegenerative disorders)

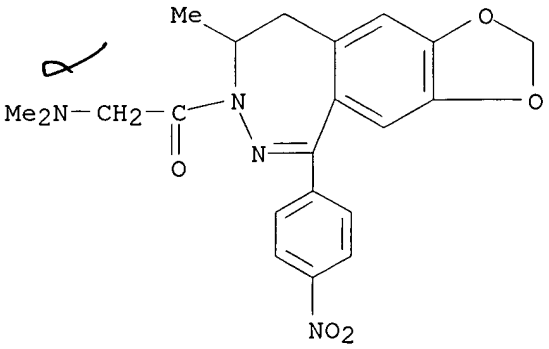
RN 143692-50-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



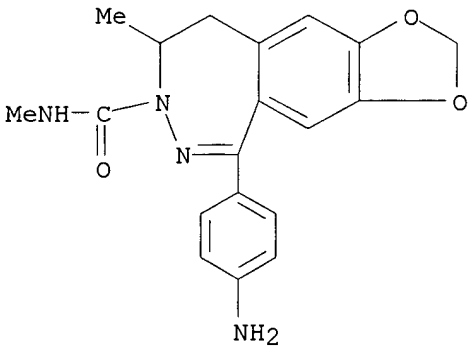
RN 173087-60-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 173087-62-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

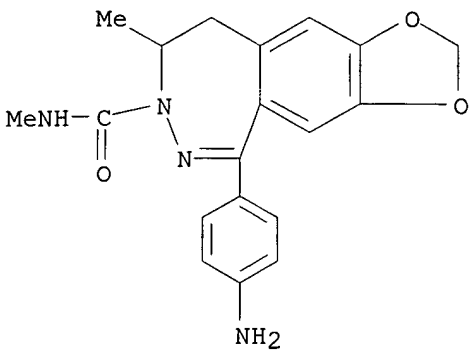


L4 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:420268 CAPLUS
DN 127:130823
TI GYKI 53655, a 2,3-benzodiazepine, non-competitively protects cultured neurons against AMPA toxicity
AU Kovacs, Attila D.; Szabo, Geza
CS Department of Biochemistry, EGIS Biological Laboratories, EGIS Pharmaceuticals Ltd., P.O. Box 100, Budapest, H-1475/10, Hung.
SO Eur. J. Pharmacol. (1997), 331(1), 93-96
CODEN: EJPHAZ; ISSN: 0014-2999
PB Elsevier
DT Journal
LA English
AB The nature of the neuroprotection by the competitive .alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor antagonist, 6-nitro-7-sulfamoyl-benzo[f]quinoxaline-2,3-dione (NBQX), and the non-competitive AMPA receptor antagonist, 1-(4-aminophenyl)-3-methylcarbamoyl-4-methyl-3,4-dihydro-7,8-methylenedioxy-5H-2,3-benzodiazepine (GYKI 53655), was investigated in mature telencephalic neuron cultures of the rat. NBQX protected cultured neurons against AMPA-induced delayed toxicity in a competitive manner: the AMPA concn.-response curve was shifted to the right in parallel and concn. dependently. In contrast, GYKI 53655 decreased the maximal neurotoxic effect of AMPA considerably but without affecting the EC50 for AMPA toxicity, which indicated the non-competitive mode of its action. Thus we found a clear relation between the nature of in vitro neuroprotection and the mode of AMPA channel block.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(GYKI 53655 and NBQX neuroprotection against AMPA neurotoxicity)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



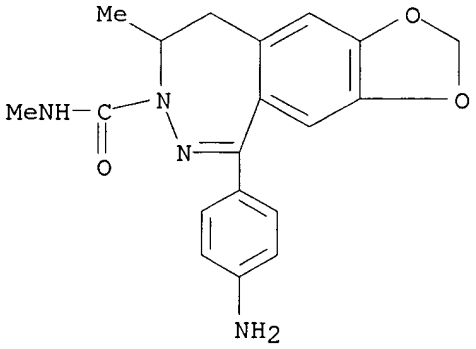
● HCl

L14 ANSWER 18 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:242666 CAPLUS
DN 126:312536
TI Activation and desensitization of hippocampal kainate receptors
AU Wilding, Timothy J.; Huettner, James E.
CS Department of Cell Biology and Physiology, Washington University School of Medicine, St. Louis, MO, 63110, USA
SO J. Neurosci. (1997), 17(8), 2713-2721
CODEN: JNRSDS; ISSN: 0270-6474
PB Society for Neuroscience
DT Journal
LA English
AB We have used whole-cell recordings and rapid agonist applications to characterize the physiol. properties of kainate receptors expressed by rat hippocampal neurons in dissocd. cell culture. Activation of NMDA and AMPA receptors was prevented by inclusion of the noncompetitive antagonists MK-801 (2 .mu.M) and GYKI 53655 (100 .mu.M), resp. In the presence of these inhibitors, both kainate (EC50 = 23 .mu.M) and glutamate (EC50 = 310 .mu.M) evoked desensitizing currents. Maximal peak currents for kainate with GYKI 53655 were 15.+-.3% as large as in control solns. without GYKI. In contrast to currents mediated by AMPA receptors, kainate currents recorded in GYKI were blocked potently by lanthanum (IC50 = 2 .mu.M) and were desensitized by 1 .mu.M 2S, 4R-4-methylglutamate (SYM 2081). Coapplication of either 5 .mu.M AMPA or 500 .mu.M aspartate had little effect on responses to kainate, although AMPA alone elicited current at 1 mM. In most cells, the currents evoked by kainate, glutamate, and SYM 2081 varied linearly with membrane potential and reversed near 0 mV. Kainate elicited substantial current at steady state (.apprx.30% of peak), whereas responses to glutamate and SYM 2081 desensitized almost completely within 0.2-2 s. Inhibition produced by a 10 s desensitizing prepulse was half-maximal at 0.22 .mu.M for SYM 2081 and 13 .mu.M for glutamate. Recovery from desensitization to kainate and glutamate was >80% complete within 60 s but was three- to fourfold slower after exposure to SYM 2081. Exposure to Con A blocked desensitization of the currents but also reduced the peak current amplitudes. Collectively, these results confirm that kainate-preferring receptors underlie the currents evoked by kainate, glutamate, or SYM-2081 in the presence of GYKI 53655; they are not mediated by electrogenic transport or by AMPA-preferring receptors that are insensitive to GYKI. In contrast to previous work on embryonic hippocampal neurons, our results show that the properties of kainate receptors expressed by cells from older animals are distinct from those displayed by homomeric assemblies of the GluR6 subunit.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(activation and desensitization of hippocampal kainate receptors in cultured neurons from 2-5-day old rats)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



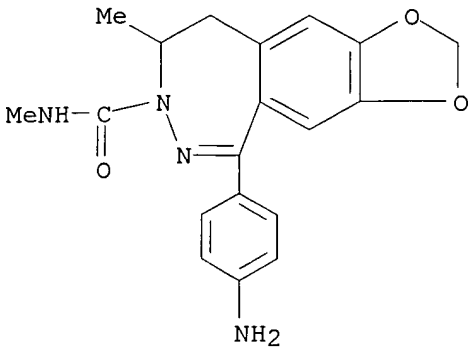
● HCl

L14 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:225394 CAPLUS
DN 126:287973
TI Comparison of neuroprotective efficacy of competitive and noncompetitive AMPA antagonists in vitro
AU Kovacs, Attila D.; Szabo, Geza
CS Dep. Biochemistry, EGIS Pharmaceuticals Ltd., Budapest, H-1475, Hung.
SO Environ. Toxicol. Pharmacol. (1997), 3(1), 69-72
CODEN: ETOPFR; ISSN: 1382-6689
PB Elsevier
DT Journal
LA English
AB The neuroprotective efficacy of the most potent known competitive AMPA (.alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid) antagonist [2,3-dihydroxy-6-nitro-7-sulfamoylbenzo(f)quinoxaline (NBQX)] and 3 recently developed 2,3-benzodiazepine-type noncompetitive AMPA antagonists (GYKI 52466, 53405 and 53655) was investigated in primary cultures of rat telencephalic neurons. NBQX protected cultured neurons against AMPA (20 .mu.M for 21-23 h)-induced toxicity, with an EC50 of 0.5 .mu.M. In the same test GYKI 52466, 53405 and 53655 had EC50 values of 10.6, 9.3 and 5.1 .mu.M, resp. Thus, the competitive antagonist NBQX was 10-fold more effective as a neuroprotectant in vitro than the most potent noncompetitive GYKI compd. (GYKI 53655).
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neurotoxicity from AMPA antagonism by)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



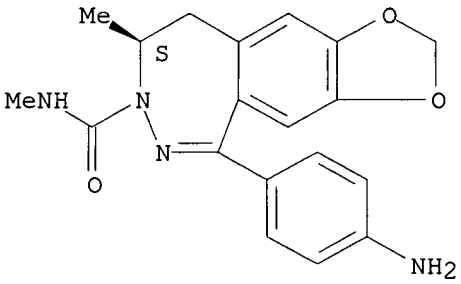
● HCl

L14 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:199528 CAPLUS
DN 126:288383
TI Activity of 2,3-benzodiazepines at native rat and recombinant human glutamate receptors in vitro: stereospecificity and selectivity profiles
AU Bleakman, David; Ballyk, Barbara A.; Schoepp, Darryle D.; Palmer, Andrew J.; Bath, Catherine P.; Sharpe, Erica F.; Woolley, Marie L.; Bufton, Hywel R.; Kamboj, Rajender K.; et al.
CS Eli Lilly and Co., Lilly Research Centre, Erl Wood Manor, Windlesham, GU20 6PH, UK
SO Neuropharmacology (1997), Volume Date 1996, 35(12), 1689-1702
CODEN: NEPHBW; ISSN: 0028-3908
PB Elsevier
DT Journal
LA English
AB The activity and selectivity of the glutamate receptor antagonists belonging to the 2,3-benzodiazepine class of compds. have been examd. at recombinant human non-NMDA glutamate receptors expressed in HEK293 cells and on native rat NMDA and non-NMDA receptors in vitro. The racemic 2,3-benzodiazepines GYKI52466, LY293606 (GYKI53405) and LY300168 (GYKI53655) inhibited AMPA (10 .mu.M)-mediated responses in recombinant human GluR1 receptors expressed in HEK293 cells with approx. IC50 values of 18 .mu.M, 24 .mu.M and 6 .mu.M, resp., and AMPA (10 .mu.M) responses in recombinant human GluR4 expressing HEK293 cells with approx. IC50 values of 22 .mu.M, 28 .mu.M and 5 .mu.M, resp. GYKI 52466, LY293606 and LY300168 were non-competitive antagonists of AMPA receptor-mediated responses in acutely isolated rat cerebellar Purkinje neurons with approx. IC50 values of 10 .mu.M, 8 .mu.M and 1.5 .mu.M, resp. The activity of racemic compds. LY293606 and LY300168 was established to reside in the (-) isomer of each compd. At a concn. of 100 .mu.M, GYKI52466, LY293606 and LY300168 produced <30% inhibition of kainate-activated currents evoked in HEK293 cells expressing either human homomeric GluR5 or GluR6 receptors or heteromeric GluR6+KA2 kainate receptors. The activity of the 2,3-benzodiazepines at 100 .mu.M was weak at kainate receptors, but was stereoselective. Similar levels of inhibition were obsd. for kainate-induced currents in dorsal root ganglion neurons. Intact tissue prepns. were also used to examine the stereoselective actions of the 2,3-benzodiazepines. In the cortical wedge prepn., the active isomer of LY300168, LY303070, produced a non-competitive antagonism of AMPA-evoked depolarizations with smaller changes in depolarizations induced by kainate and no effect on NMDA-dependent depolarizations. LY303070 was also effective in preventing 30 .mu.M AMPA-induced depolarizations in isolated spinal cord dorsal roots with an approx. IC50 value of 1 .mu.M. Synaptic transmission in the hemisected spinal cord prepn. was stereoselectively antagonized by the active isomers of LY300168 and LY293606. In summary, these results indicate that 2,3-benzodiazepines are potent, selective and stereospecific antagonists of the AMPA subtype of the non-NMDA glutamate receptor.
IT **143692-18-6**, LY 300168 **161832-69-5**, LY 303071
161832-71-9, LY 303070
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(stereospecificity and selectivity profiles of activity of benzodiazepines at native rat and recombinant human glutamate receptors in vitro)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



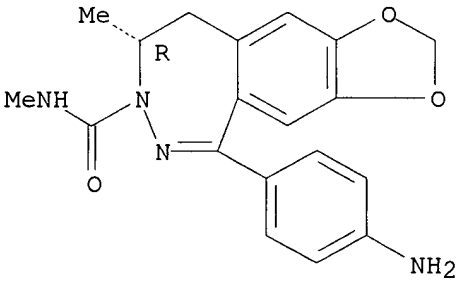
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



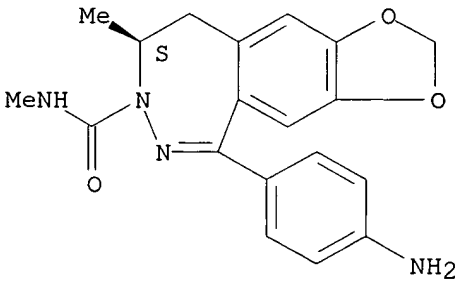
RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



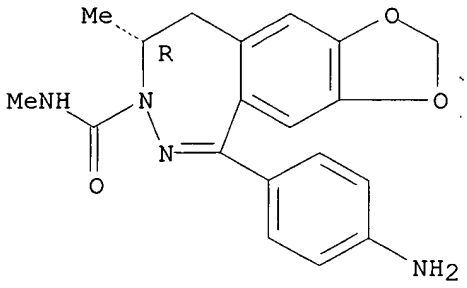
L14 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:199527 CAPLUS
DN 126:287923
TI Stereoselective effects of 2,3-benzodiazepines in vivo: electrophysiology and neuroprotection studies
AU Lodge, David; Bond, Ann; O'neill, Michael J.; Hicks, Caroline A.; Jones, Martyn G.
CS Lilly Research Centre, Erl Wood Manor, Windlesham, GU20 6PH, UK
SO Neuropharmacology (1997), Volume Date 1996, 35(12), 1681-1688
CODEN: NEPHBW; ISSN: 0028-3908
PB Elsevier
DT Journal
LA English
AB The stereoselectivity and potency of 3N-substituted 2,3-benzodiazepines were examd. in vivo against excitation of spinal neurons induced by electrophoretic ejection of N-methyl-D-aspartate (NMDA), .alpha.-amino-3-hydroxy-5-methylisoxazole-4-propionate (AMPA) and kainate in anesthetized rats. AMPA receptor antagonist activity resided in the (-) isomers, LY300164 and LY303070, which were effective given electrophoretically, i.v. (2.5-5 mg/kg) or orally (10 mg/kg). The same stereoselectivity was obsd. in neuroprotection studies. Thus, systemic administration of the (-) isomer, but not the (+) isomer, of these 2,3-benzodiazepines before or immediately after bilateral carotid artery occlusion in the gerbil was neuroprotective. For example, 10 mg/kg of LY300164 i.p. or orally provided survival of .ltoreq.25% of hippocampal CA1 neurons.
IT **161832-69-5**, LY 303071 **161832-71-9**, LY 303070
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stereoselective effects of benzodiazepines in vivo in electrophysiol. and neuroprotection studies in relation to AMPA receptor antagonist activity)
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

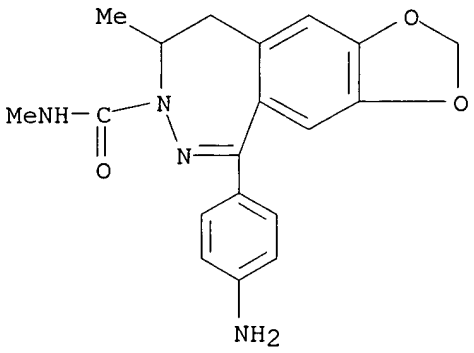


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

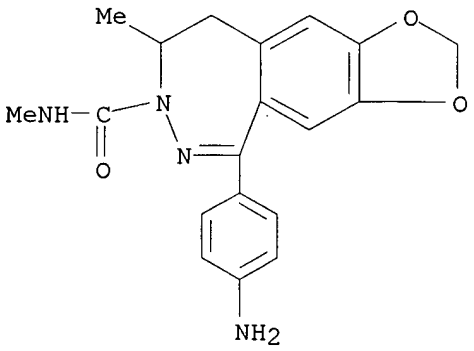

Me
R
MeNH
N
N
O
O
O
NH2

L4 ANSWER 22 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:183636 CAPLUS
DN 126:220635
TI Pharmacology of directionally selective ganglion cells in the rabbit retina
AU Kittila, Christopher A.; Massey, Stephen C.
CS Department of Ophthalmology and Visual Science, University of Texas Medical School, Houston, TX, 77030, USA
SO J. Neurophysiol. (1997), 77(2), 675-689
CODEN: JONEA4; ISSN: 0022-3077
PB American Physiological Society
DT Journal
LA English
AB In this report we describe extracellular recordings made from ON and ON-OFF directionally selective (DS) ganglion cells in the rabbit retina during perfusion with agonists and antagonists to acetylcholine (ACh), glutamate, and .gamma.-aminobutyric acid (GABA). Nicotinic ACh agonists strongly excited DS ganglion cell in a dose-dependent manner. Dose-response curves showed a wide range of potencies, with (.+-.)-exo-2-(6-chloro-3-pyridinyl)-7-azabicyclo[2.2.1] heptane dihydrochloride (epibatidine) .mchgt. nicotine > 1,1-dimethyl-4-phenylpiperazinium iodide = carbachol. In addn., the mixed cholinergic agonist carbachol produced a small excitation, mediated by muscarinic receptors, that could be blocked by atropine. The specific nicotinic antagonists hexamethonium bromide (100 .mu.M), dihydro-.beta.-erythroidine (50 .mu.M), mecamylamine (50 .mu.M), and tubocurarine (50 .mu.M) blocked the responses to nicotinic agonists. In addn., nicotinic antagonists reduced the light-driven input to DS ganglion cells by .apprx.50%. However, attenuated responses were still DS. We deduce that cholinergic input is not required for directional selectivity. These expts. reveal the importance of bipolar cell input mediated by glutamate. N-methyl-D-aspartic acid (NMDA) excited DS ganglion cells, but NMDA antagonists did not abolish directional selectivity. However, a combined cholinergic and NMDA blockade reduced the responses of DS ganglion cells by >90%. This indicates that most of the noncholinergic excitatory input appears to be mediated by NMDA receptors, with a small residual made up by .alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)/kainate (KA) receptors. Responses to AMPA and KA were highly variable and often evoked a mixt. of excitation and inhibition due to the release of ACh and GABA. Under cholinergic blockade AMPA/KA elicited a strong GABA-mediated inhibition in DS ganglion cells. AMPA/KA antagonists, such as 2,3-dihydroxy-6-nitro-7-sulfamoylbenzo(F)quinoxaline dione and GYKI-53655, promoted null responses and abolished directional selectivity due to the blockade of GABA release. We conclude that GABA release, mediated by non-NMDA glutamate receptors, is an essential part of the mechanism of directional selectivity. The source of the GABA is unknown, but may arise from starburst amacrine cells.
IT **143692-48-2**, GYKI-53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(pharmacol. of directionally selective ganglion cells in the rabbit retina)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



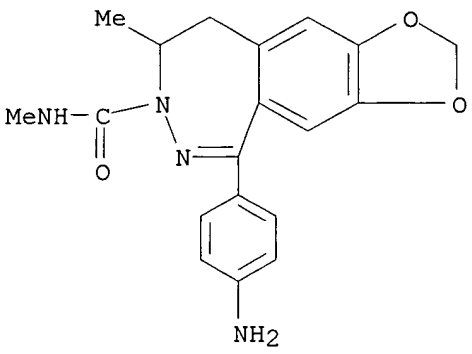
● HCl

L14 ANSWER 23 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1997:13664 CAPLUS
DN 126:113223
TI Glutamate receptors of the kainate type and synaptic transmission
AU Lerma, Juan; Morales, Miguel; Vicente, Maria A.; Herreras, Oscar
CS Dep. Neural Plasticity, Inst. Cajal, Madrid, 28002, Spain
SO Trends Neurosci. (1997), 20(1), 9-12
CODEN: TNSCDR; ISSN: 0166-2236
PB Elsevier
DT Journal; General Review
LA English
AB A review, with 45 refs. Glutamic acid is an important excitatory neurotransmitter in the mammalian CNS. It has been established that synaptic transmission is mediated mostly by the ionotropic glutamate receptors AMPA and NMDA, with fast and slow kinetics, resp. The recent demonstration in hippocampal neurons of a class of glutamate receptors that are activated by kainate and not by AMPA (i.e., kainate-selective receptors) opens the possibility that receptors, others than those of the AMPA type, might also be involved in fast neurotransmission. The lack of specific pharmacol. tools to dissect out AMPA from kainate receptors has hampered the functional study of kainate receptors. However, the recent finding that a 2,3-benzodiazepine (GYKI 53655) behaves as a selective antagonist of AMPA receptors allows us to address the question of the role of rapidly inactivating kainate receptors in synaptic transmission.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(glutamate receptors of kainate type and synaptic transmission)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



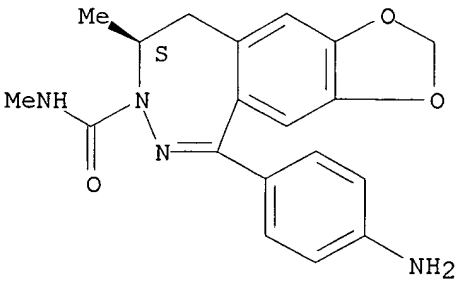
● HCl

L24 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:460121 CAPLUS
DN 125:151280
TI Chiral separation of optically active 2,3-benzodiazepine derivatives by high performance liquid chromatography
AU Bidlo-Igloy, Margit
CS Inst. Drug Res., Budapest, H-1325, Hung.
SO J. Pharm. Biomed. Anal. (1996), 14(8-10), 1389-1394
CODEN: JPBADA; ISSN: 0731-7085
DT Journal
LA English
AB Cellulose derivs. (Chiralcel OF and OJ) were used for the sepn. of 4.5-dihydro-2,3-benzodiazepines by HPLC. A higher degree of resoln. was obtained on the Chiralcel OF column if the mol contained an arom. NO2 or NH2 group.
IT **143692-18-6 161832-69-5 161832-71-9**
RL: ANT (Analyte); ANST (Analytical study)
(chiral sepn. of benzodiazepine derivs. by HPLC)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



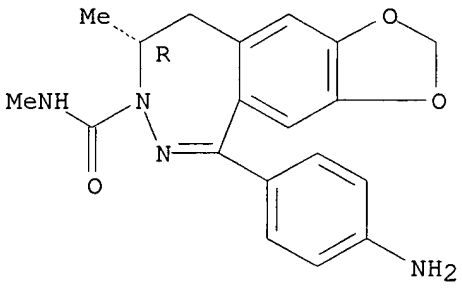
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

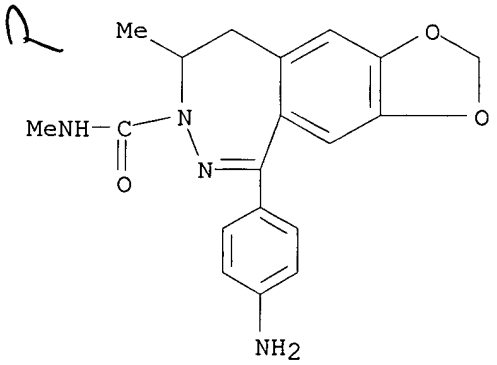
Absolute stereochemistry. Rotation (-).



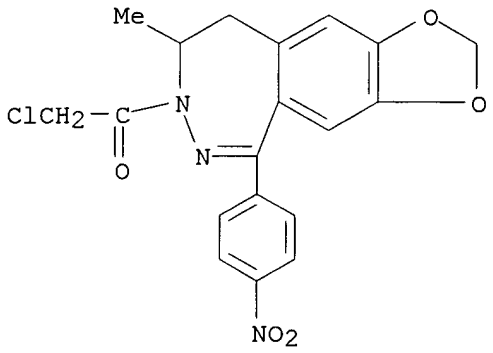
L14 ANSWER 25 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:380208 CAPLUS
DN 125:114647
TI N-acyl-2,3-benzodiazepine derivatives and a method of treating spasms of the skeletal musculature therewith
IN Andrasi, Ferenc; Berzsenyi, Pal; Botka, Peter; Farkas, Sandor; Goldschmidt, Katalin; Hamori, Tamas; Koroesi, Jeno; Moravcsik, Imre; Tarnawa, Istvan
PA Gyogyszerkutato Intezet, Hung.
SO U.S., 22 pp. Cont.-in-part of U.S. Ser. No. 423,380, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5521174	A	19960528	US 1995-477799	19950607
	HU 59684	A2	19920629	HU 1990-8398	19901221
	HU 219778	B	20010730		
	US 5459137	A	19951017	US 1993-80604	19930621
PRAI	HU 1990-8398	A	19901221		
	US 1991-809361	B2	19911217		
	US 1993-48347	B2	19930415		
	US 1993-80604	A3	19930621		
	US 1995-423380	B2	19950417		

OS MARPAT 125:114647
AB The invention relates to the prepn. of novel N-acyl-2,3-benzodiazepine derivs. and a method of treating spasms of the skeletal musculature.
IT **143692-18-6**, 1-(4-Aminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **173087-61-1**, 1-(4-Nitrophenyl)-3-chloroacetyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine
RL: RCT (Reactant)
(for prepn. of N-acyl-2,3-benzodiazepines as spasmolytic muscle relaxants)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



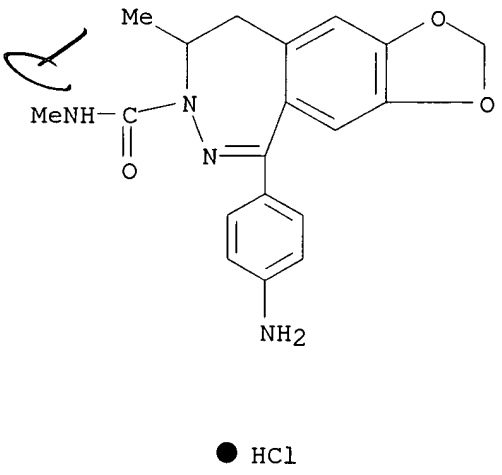
RN 173087-61-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



IT **143692-48-2P 143692-50-6P,** 1-(4-Nitrophenyl)-3-(1-pyrrolidinoacetyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-51-7P,** 1-(4-Nitrophenyl)-3-n-butylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-52-8P,** 1-[4-(N-Phthaloylglycylamino)phenyl]-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **173087-60-0P,** 1-(4-Nitrophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **173087-62-2P,** 1-(4-Nitrophenyl)-3-(N,N-dimethylglycyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(for prepn. of N-acyl-2,3-benzodiazepines as spasmolytic muscle relaxants)

RN 143692-48-2 CAPLUS

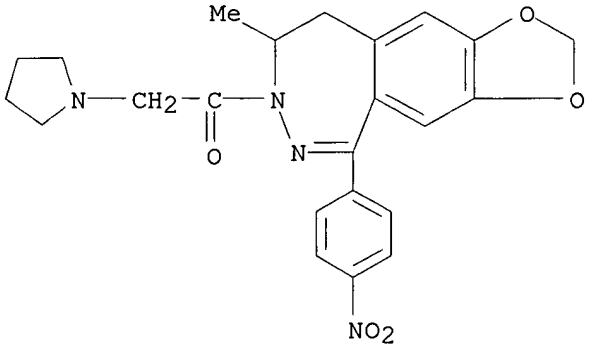
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



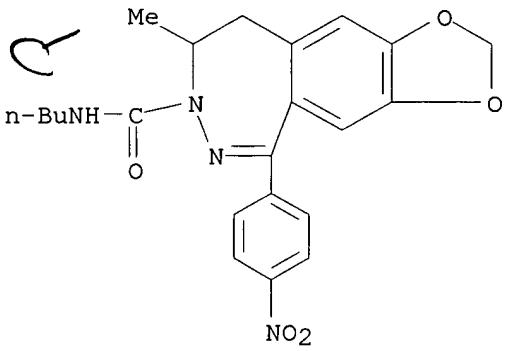
● HCl

RN 143692-50-6 CAPLUS

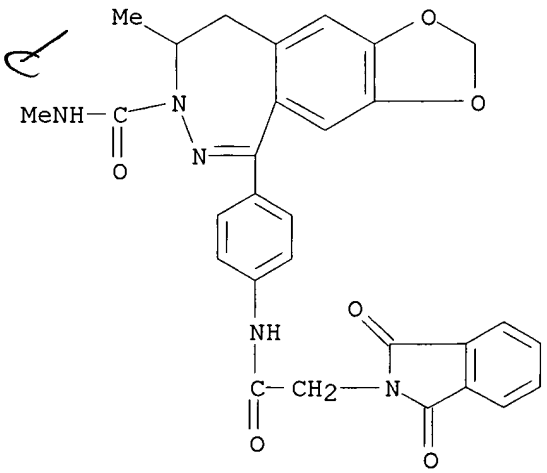
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-51-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-butyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

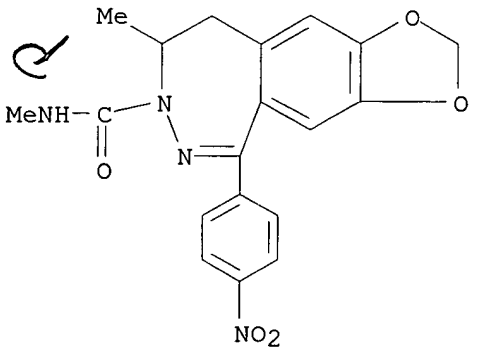


RN 143692-52-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

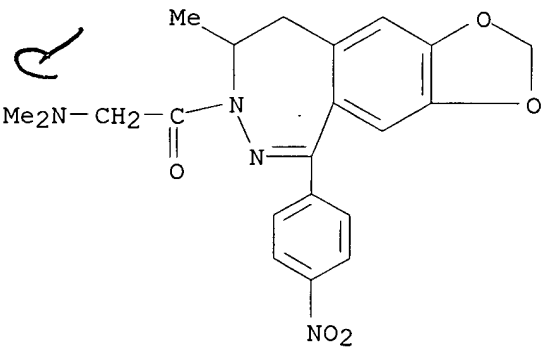


RN 173087-60-0 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



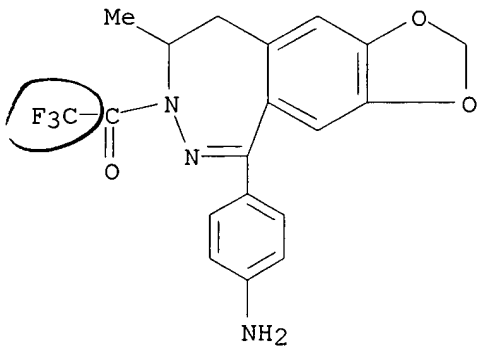
RN 173087-62-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



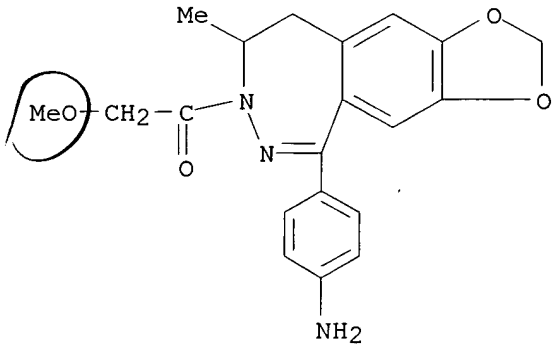
IT **143691-38-7P 143691-45-6P 143691-47-8P 143691-55-8P 143691-57-0P 143691-62-7P 143691-65-0P 143691-71-8P 143691-88-7P 143691-90-1P 143692-02-8P**, 1-(4-Nitrophenyl)-3-glycyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-04-0P**, 1-(4-Nitrophenyl)-3-(DL-alanyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-05-1P**, 1-(4-Nitrophenyl)-3-(N-phthaloylglycyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-07-3P 143692-09-5P 143692-12-0P 143692-13-1P 143692-18-6P**, 1-(4-Aminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-19-7P**, 1-(4-Aminophenyl)-3-(1-pyrrolidinoacetyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-21-1P**, 1-(4-Aminophenyl)-3-(N,N-dimethylglycyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine hydrogen fumarate **143692-26-6P**, 1-(4-Acetylaminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-32-4P**, 1-(4-Acetylaminophenyl)-3-chloroacetyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-3H-2,3-benzodiazepine **143692-35-7P**, N1-[4-(3-Methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepin-1-yl)phenyl]-N3-

methylurea **143692-36-8P**, 1-(4-Aminophenyl)-3-n-butylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepin-1-yl **143692-37-9P**, 1-(4-Glycylaminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143692-38-0P**, 1-(4-Aminophenyl)-3-(N-methylglycyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **143715-46-2P 161832-68-4P**, (-)-1-(4-Nitrophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **161832-69-5P**, (+)-1-(4-Aminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **161832-70-8P**, (+)-1-(4-Nitrophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **161832-71-9P**, (-)-1-(4-Aminophenyl)-3-methylcarbamoyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine **173087-57-5P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. as spasmolytic muscle relaxants)

RN 143691-38-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)

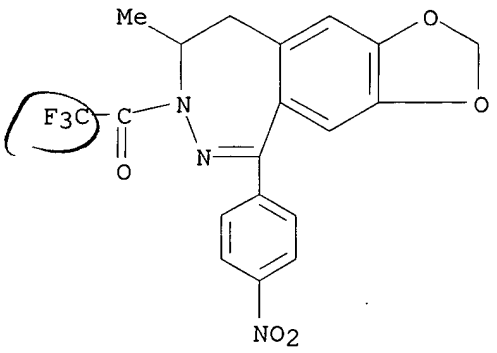


RN 143691-45-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)

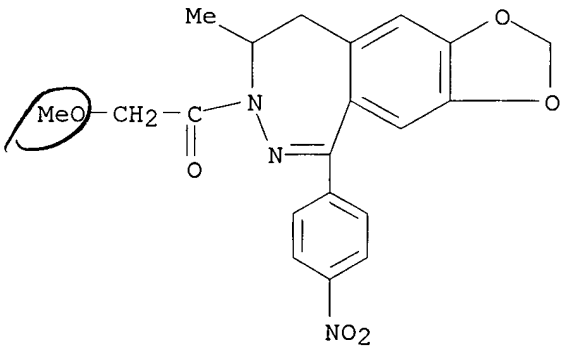


RN 143691-47-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-

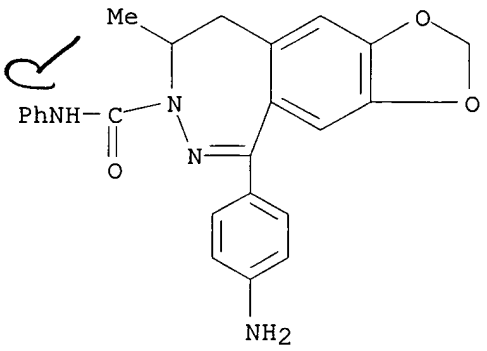
nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



RN 143691-55-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(methoxyacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

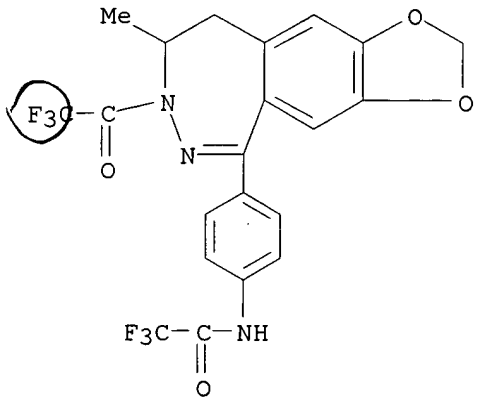


RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)

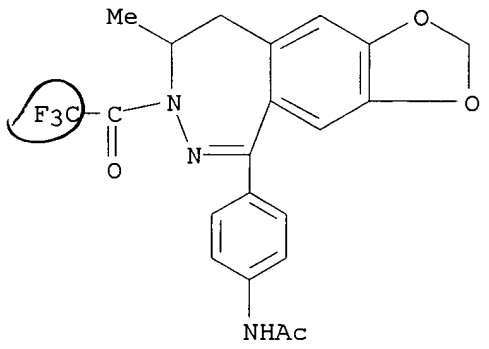


RN 143691-62-7 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-2,2,2-trifluoro- (9CI) (CA

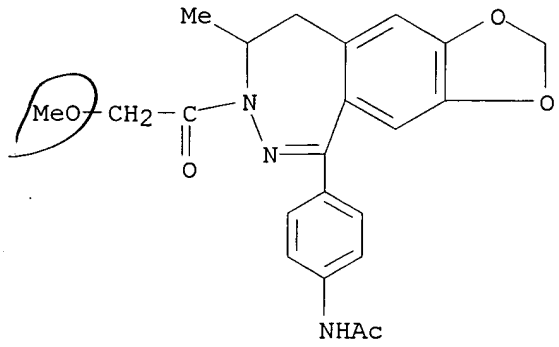
INDEX NAME)



RN 143691-65-0 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

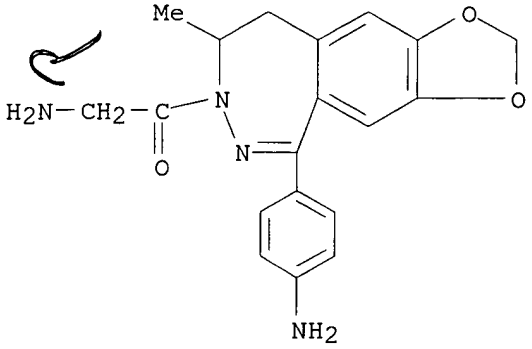


RN 143691-71-8 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-7-(methoxyacetyl)-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

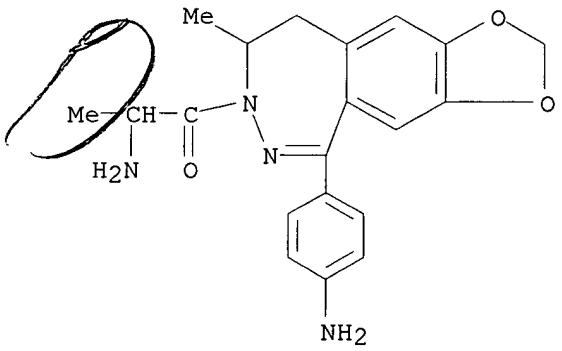


RN 143691-88-7 CAPLUS

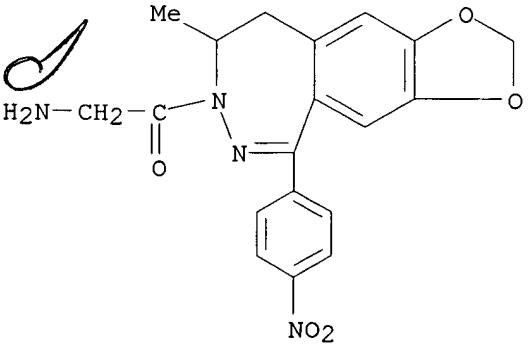
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-90-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)

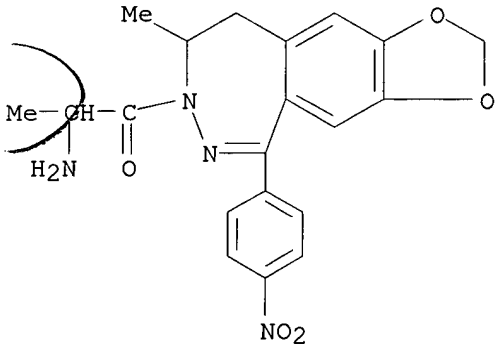


RN 143692-02-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

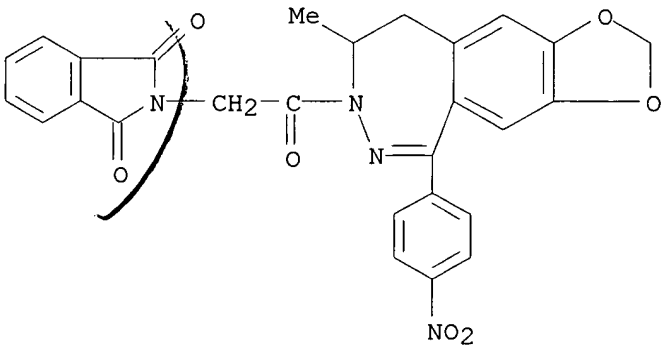


RN 143692-04-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-8,9-

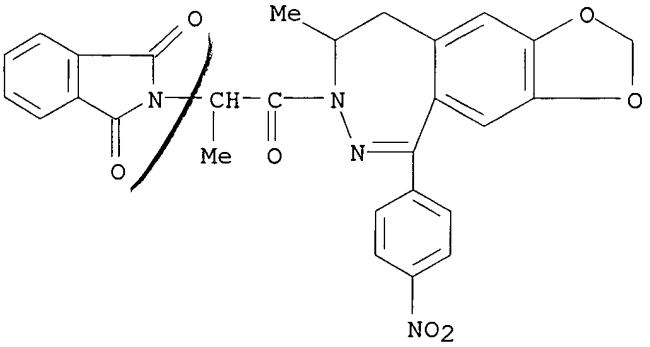
dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 143692-05-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

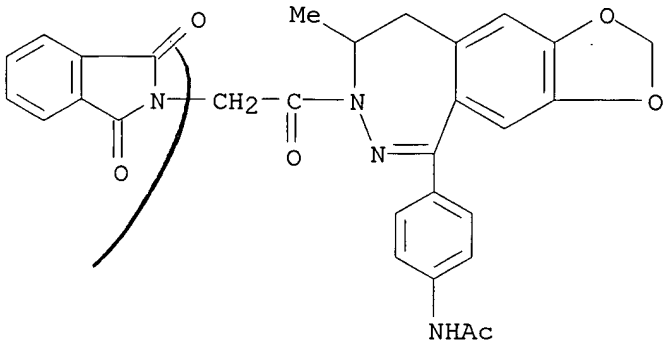


RN 143692-07-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-1-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

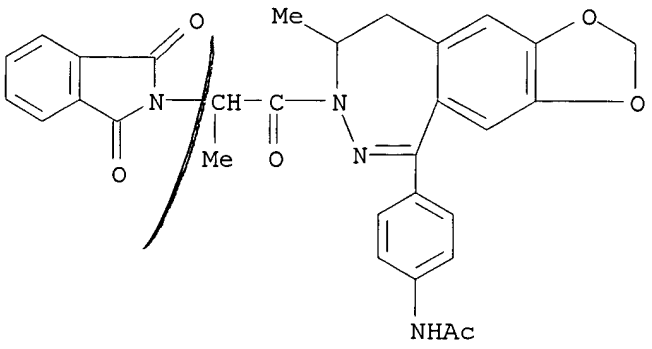


RN 143692-09-5 CAPLUS

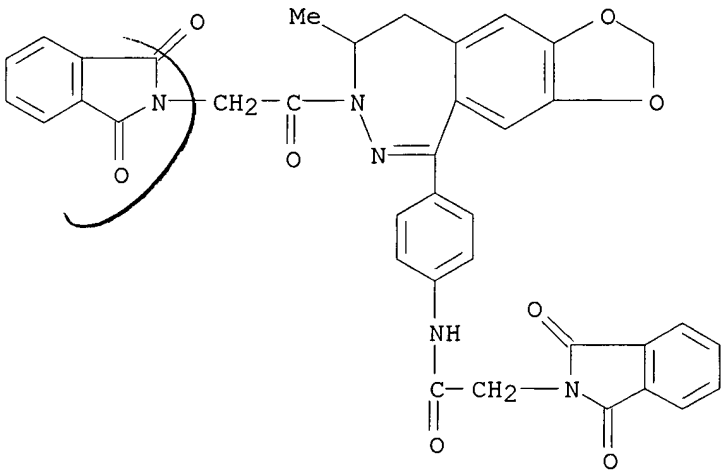
CN Acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



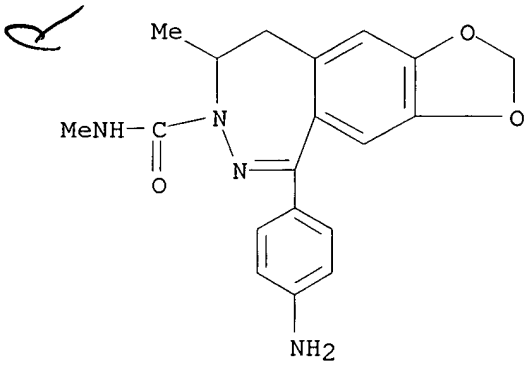
RN 143692-12-0 CAPLUS
CN Acetamide, N-[4-[7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



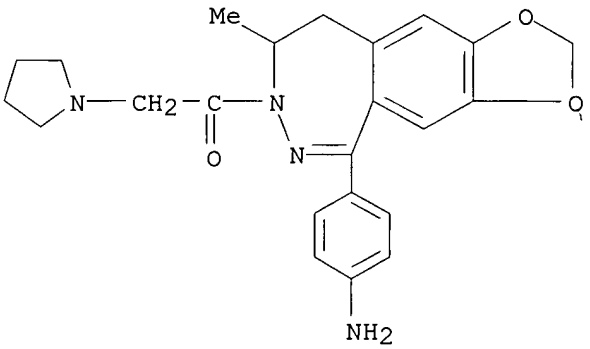
RN 143692-13-1 CAPLUS
CN 2H-Isoindole-2-acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RN 143692-19-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)

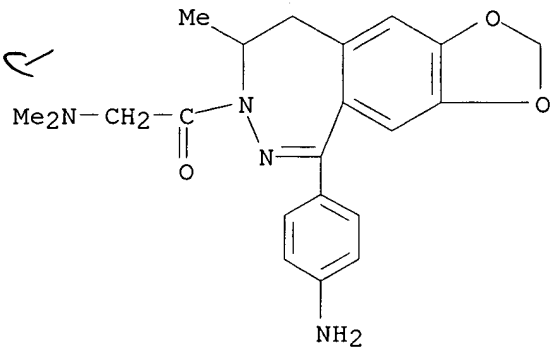


RN 143692-21-1 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

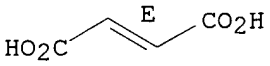
CRN 143692-20-0
CMF C21 H24 N4 O3



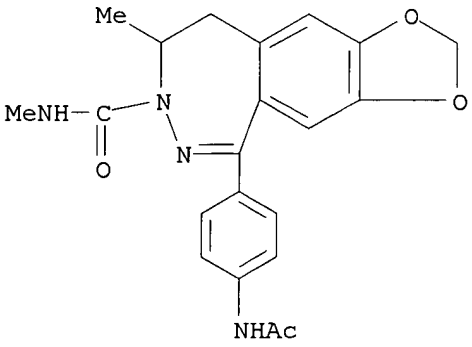
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.

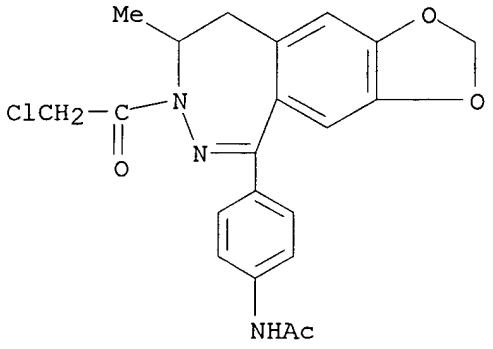


RN 143692-26-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-(acetylamino)phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

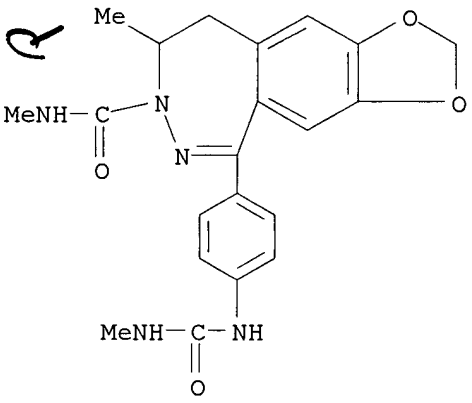


RN 143692-32-4 CAPLUS
CN Acetamide, N-[4-[7-(chloroacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-

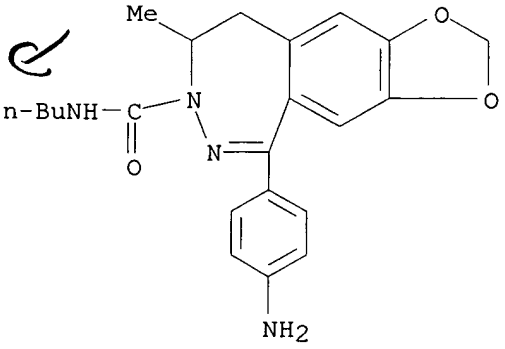
h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



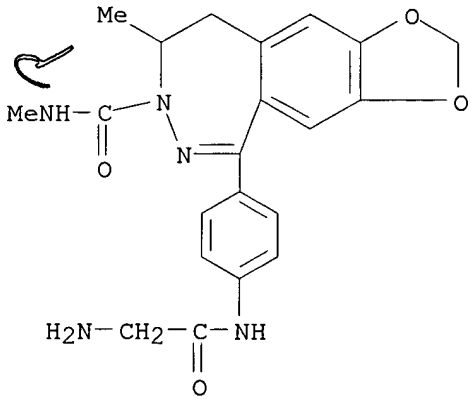
RN 143692-35-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
8,9-dihydro-N,8-dimethyl-5-[4-[[(methylamino)carbonyl]amino]phenyl]- (9CI)
(CA INDEX NAME)



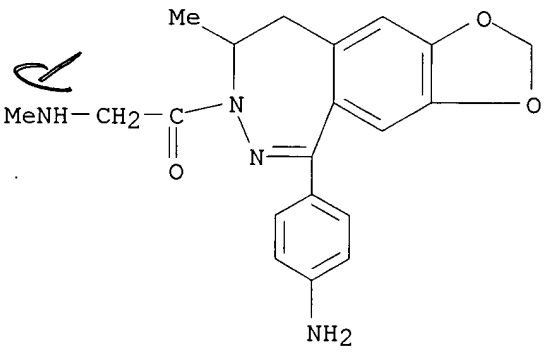
RN 143692-36-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



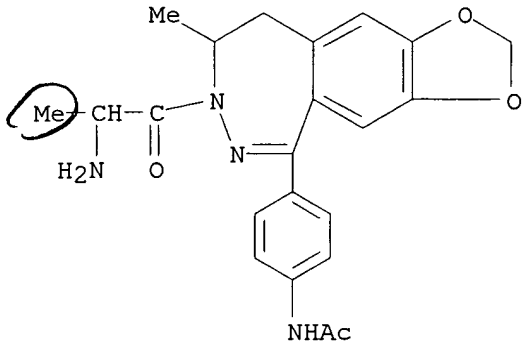
RN 143692-37-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[(aminoacetyl)amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RN 143692-38-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

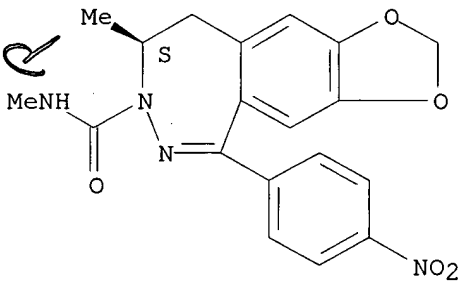


RN 143715-46-2 CAPLUS
CN Acetamide, N-[4-[7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



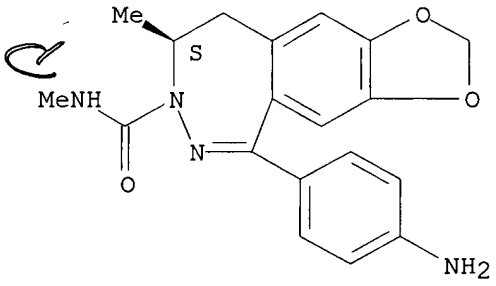
RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



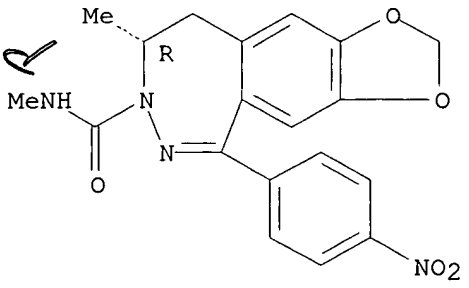
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



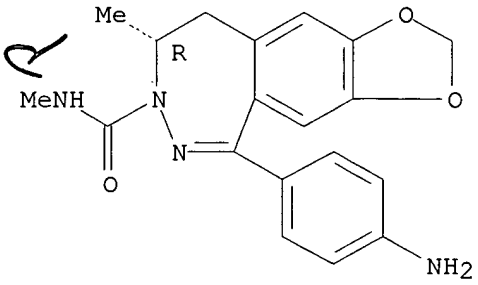
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,
8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

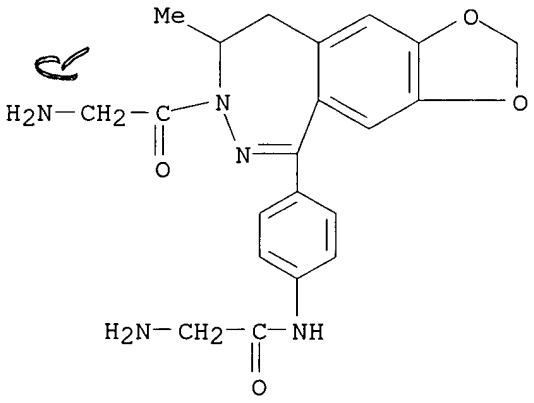


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



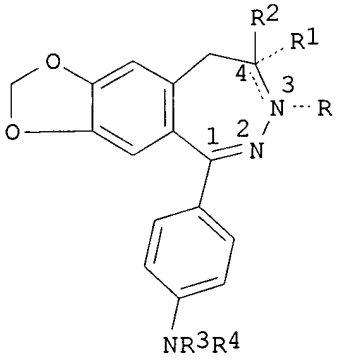
RN 173087-57-5 CAPLUS
CN Acetamide, 2-amino-N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



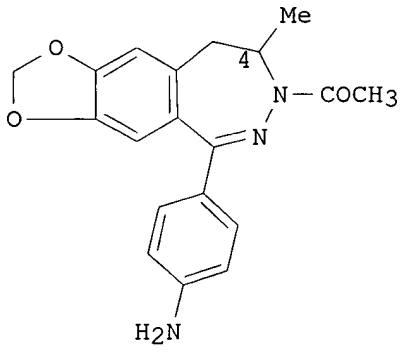
L14 ANSWER 26 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:366157 CAPLUS
DN 125:114722
TI N-Acyl 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-2,3-benzodiazepine derivatives as excitatory amino acid antagonists useful as anticonvulsants, muscle relaxants, and neuroprotectants
IN Andrasi, Ferenc; Berzsenyi, Pal; Botka, Peter; Farkas, Sandor; Goldschmidt, Katalin; Hamori, Tamas; Koroesi, Jeno; Moravcsik, Imre; Tarnawa, Istvan
PA Gyogyszerkutato Intezet, Hung.
SO U.S., 22 pp. Cont.-in-part of U. S. Ser. No. 423,166.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5519019	A	19960521	US 1995-472454	19950607
	HU 59684	A2	19920629	HU 1990-8398	19901221
	HU 219778	B	20010730		
	US 5459137	A	19951017	US 1993-80604	19930621
PRAI	HU 1990-8398	A	19901221		
	US 1991-809361	B2	19911217		
	US 1993-48347	B2	19930415		
	US 1993-80604	A3	19930621		
	US 1995-423166	A2	19950417		

OS MARPAT 125:114722
GI



I



II

AB A method of blocking the activation of one or more excitatory amino acid receptors in mammals is claimed, which comprises administering to a mammal in need of decreased excitatory amino acid neurotransmission a pharmaceutically effective amt. of a compd. of formula I wherein R is a C1-6 alkanoyl group optionally substituted by a methoxy, cyano, carboxyl, amino, C1-4 alkylamino, di(C1-4 alkyl)amino, pyrrolidino, phthalimido or Ph group, or by one or more halogen(s); or R is a benzoyl, cyclopropanecarbonyl, C1-5 alkylcarbamoyl or phenylcarbamoyl group; or R is absent when a double bond exists between the N(3) and C(4) atoms; R1 is hydrogen, or R1 is absent when a double bond exists between the N(3) and

C(4) atoms; R2 is a C1-3 alkyl group; or R1 and R2 together form a methylene group; R3 is hydrogen or a C1-4 alkanoyl group; R4 is hydrogen; a C1-6 alkanoyl group optionally substituted by a methoxy, cyano, carboxyl, amino, C1-4 alkylamino, di(C1-4 alkyl)amino, pyrrolidino, phthalimido or Ph group or by one or more halogen(s); as well as a benzoyl, palmitoyl, cyclopropanecarbonyl, C1-5 alkylcarbamoyl or phenylcarbamoyl group; with the proviso that no double bond exists between the N(3) and C(4) atoms when both R3 and R4 stand for hydrogen; and stereoisomers and pharmaceutically acceptable salts. Thus, e.g., acetylation of 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine with Ac2O afforded 85.7% 1-(4-aminophenyl)-3-acetyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (II) which exhibited inhibition of synaptic field potentials in rat hippocampal slices (an indicator of selective AMPA antagonist activity) with IC50 = 24.8 .mu.M vs. 31.7 .mu.M for GYKI 52466. Data are presented as well for the anticonvulsant, muscle-relaxant, and neuroprotective activity of I. Pharmaceutical formulations were given.

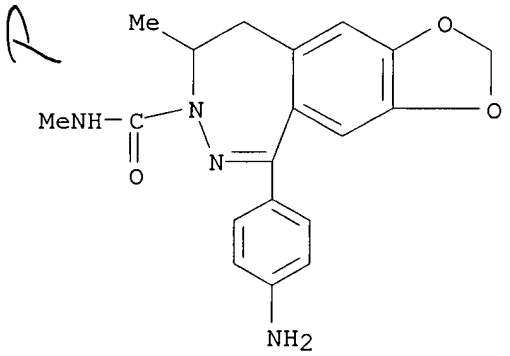
IT **143692-18-6P**

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(N-acyl 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-2,3-benzodiazepine derivs. as excitatory amino acid antagonists useful as anticonvulsants, muscle relaxants, and neuroprotectants)

RN 143692-18-6 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



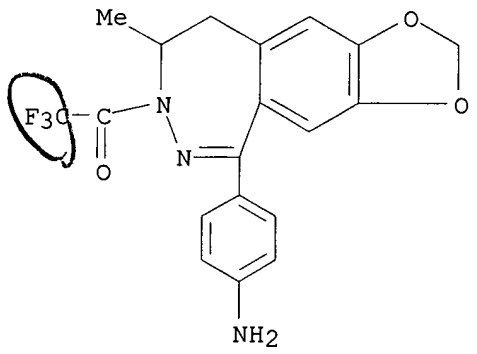
IT **143691-38-7P 143691-45-6P 143691-57-0P**
143691-62-7P 143691-65-0P 143691-71-8P
143691-88-7P 143691-89-8P 143691-90-1P
143691-91-2P 143692-19-7P 143692-21-1P
143692-26-6P 143692-32-4P 143692-35-7P
143692-36-8P 143692-37-9P 143692-38-0P
143692-48-2P 143715-46-2P 161832-69-5P
161832-71-9P 173087-57-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

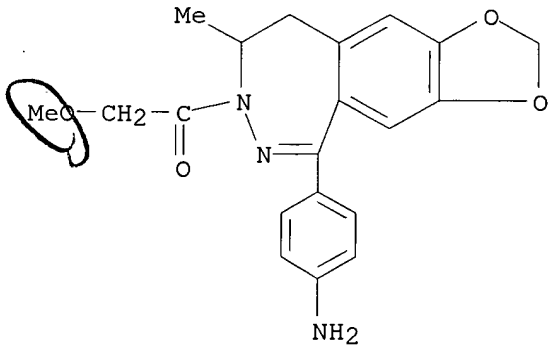
(N-acyl 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-2,3-benzodiazepine derivs. as excitatory amino acid antagonists useful as anticonvulsants, muscle relaxants, and neuroprotectants)

RN 143691-38-7 CAPLUS

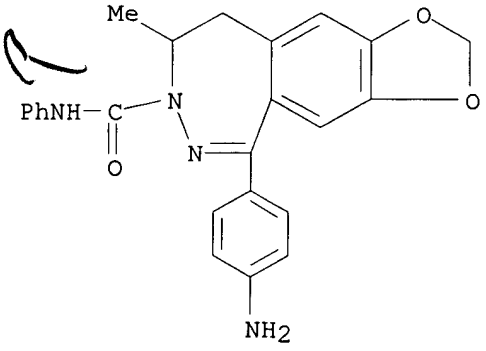
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



RN 143691-45-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)

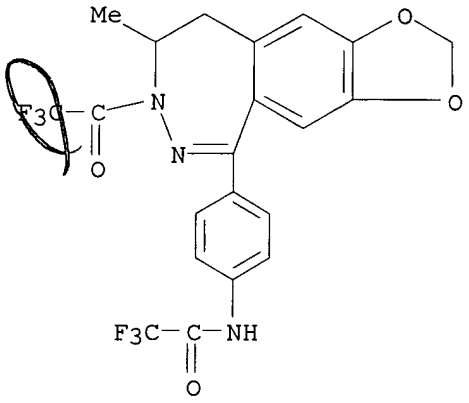


RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)

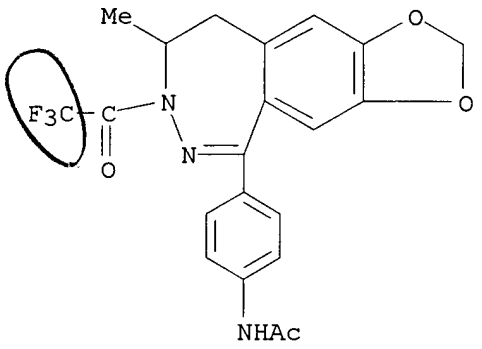


RN 143691-62-7 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-

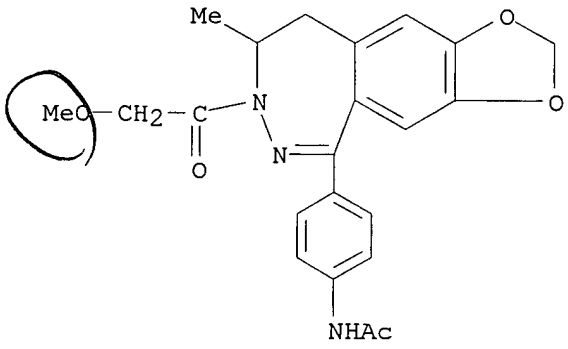
dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



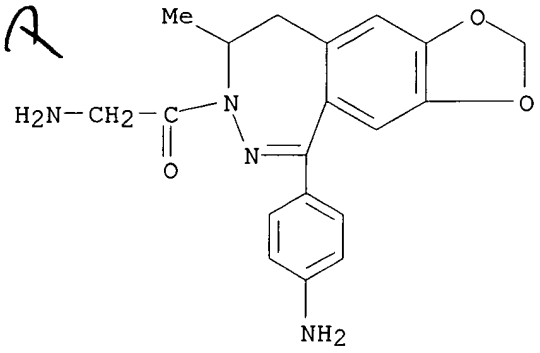
RN 143691-65-0 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 143691-71-8 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-7-(methoxyacetyl)-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



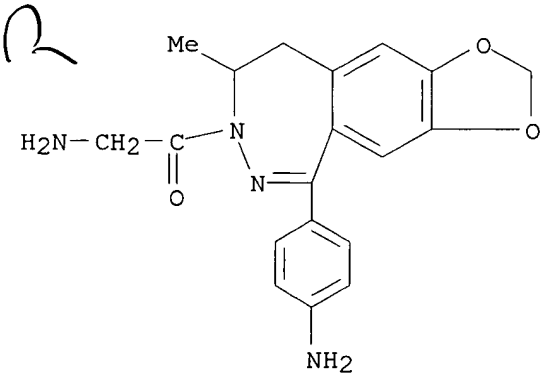
RN 143691-88-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-89-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

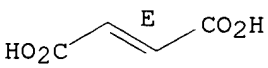
CRN 143691-88-7
CMF C19 H20 N4 O3



CM 2

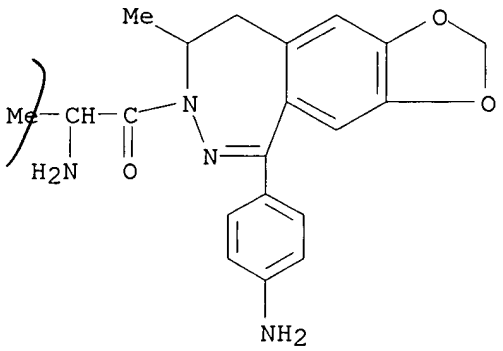
CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



RN 143691-90-1 CAPLUS

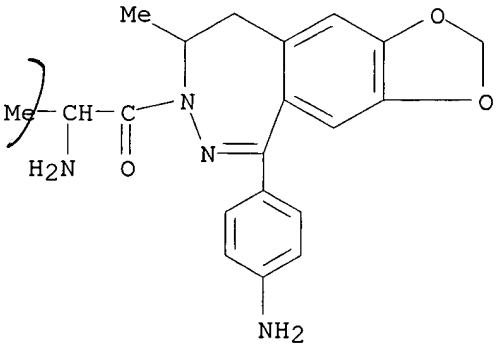
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-91-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

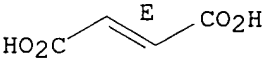
CRN 143691-90-1
CMF C20 H22 N4 O3



CM 2

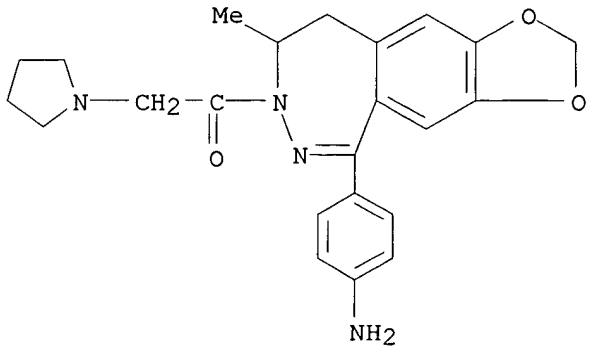
CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



RN 143692-19-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-

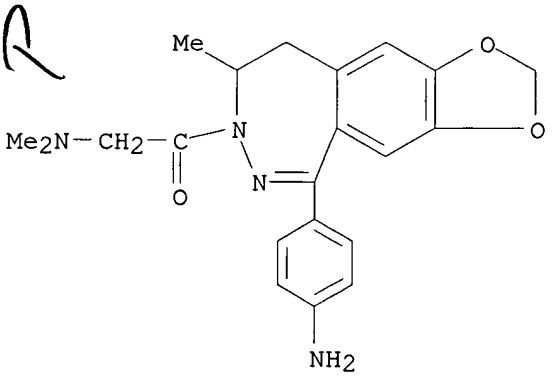
methyl-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-21-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

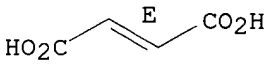
CRN 143692-20-0
CMF C21 H24 N4 O3



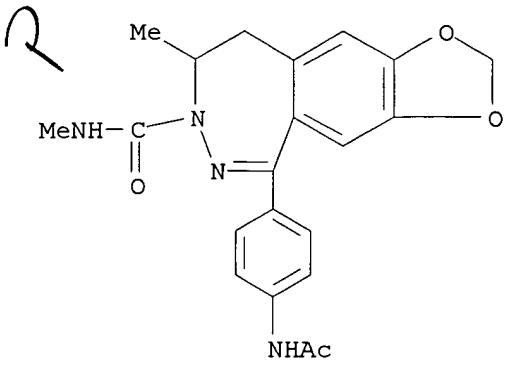
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

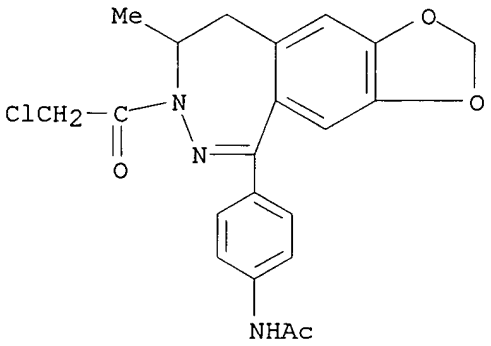
Double bond geometry as shown.



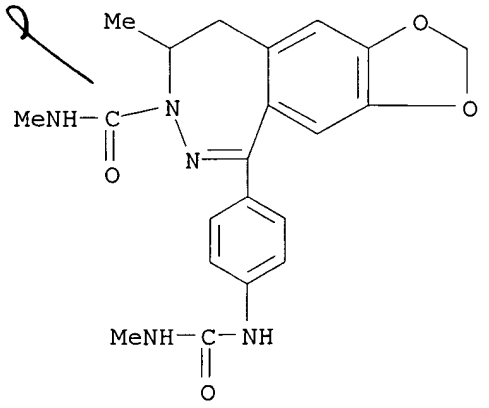
RN 143692-26-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-(acetylamino)phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RN 143692-32-4 CAPLUS
CN Acetamide, N-[4-[7-(chloroacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

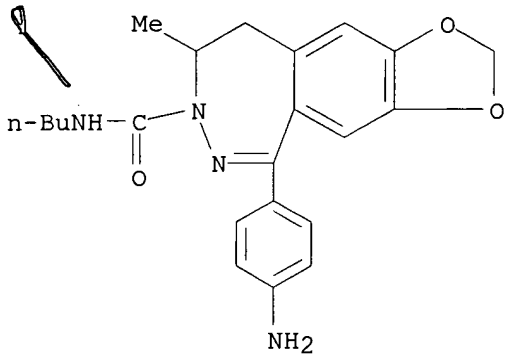


RN 143692-35-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-[4-[[(methylamino)carbonyl]amino]phenyl]- (9CI) (CA INDEX NAME)



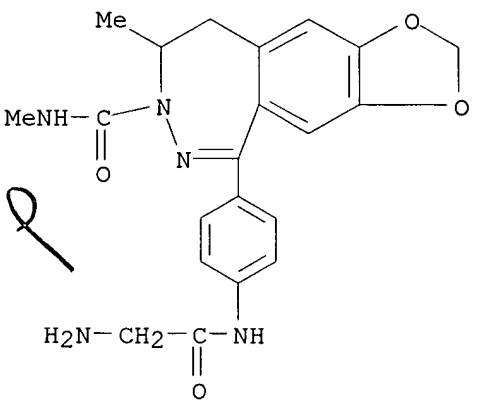
RN 143692-36-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



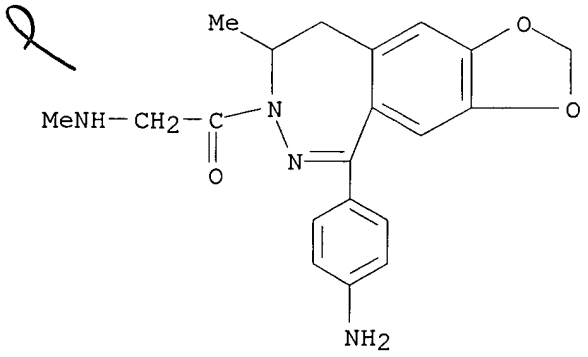
RN 143692-37-9 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[(aminoacetyl)amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

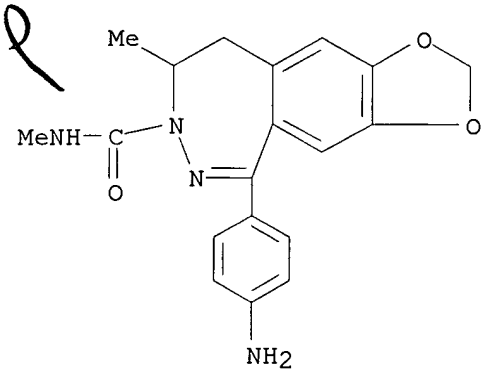


RN 143692-38-0 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

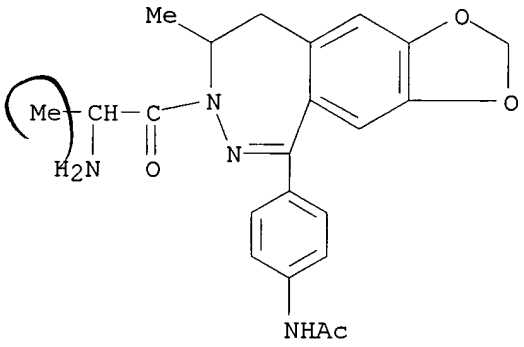


RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



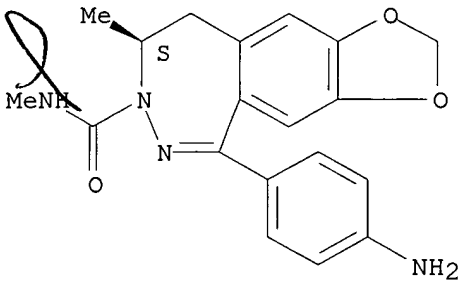
● HCl

RN 143715-46-2 CAPLUS
CN Acetamide, N-[4-[7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



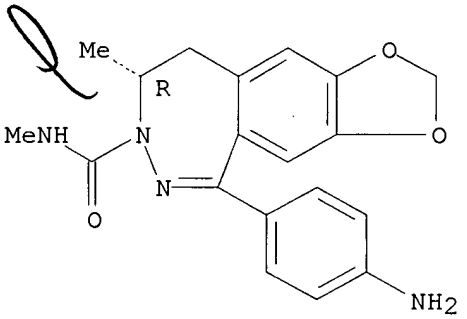
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

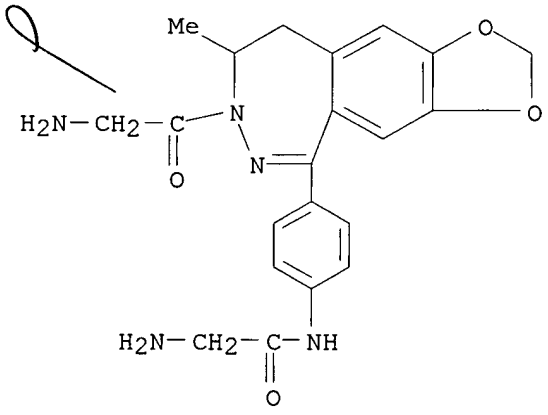


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



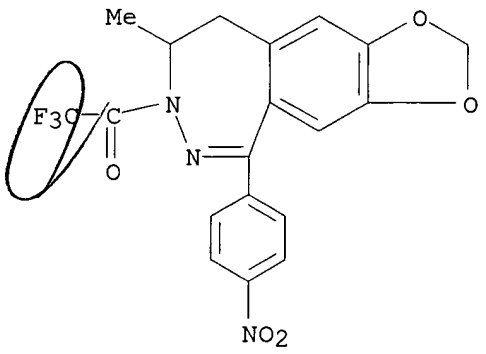
RN 173087-57-5 CAPLUS
CN Acetamide, 2-amino-N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



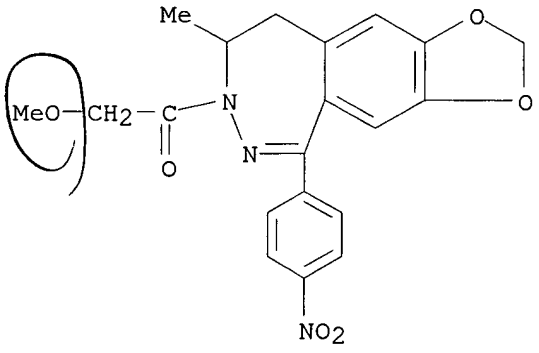
IT **143691-47-8P 143691-55-8P 143692-02-8P**
143692-04-0P 143692-05-1P 143692-07-3P
143692-50-6P 143692-51-7P 143692-52-8P
161832-68-4P 161832-70-8P 173087-60-0P
173087-61-1P 173087-62-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(N-acyl 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-2,3-benzodiazepine derivs. as excitatory amino acid antagonists useful as anticonvulsants, muscle relaxants, and neuroprotectants)

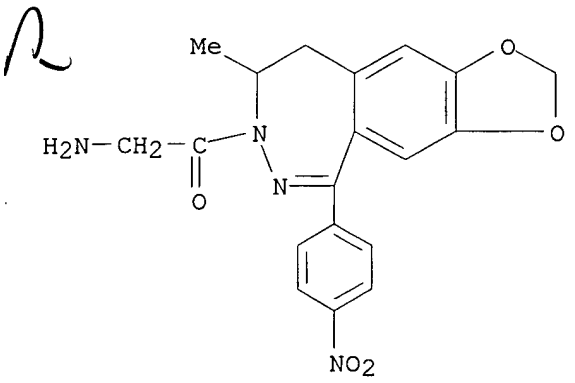
RN 143691-47-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



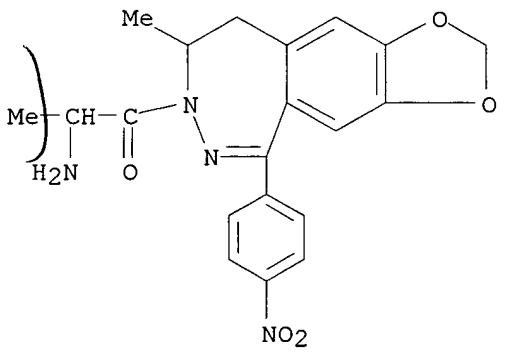
RN 143691-55-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(methoxyacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



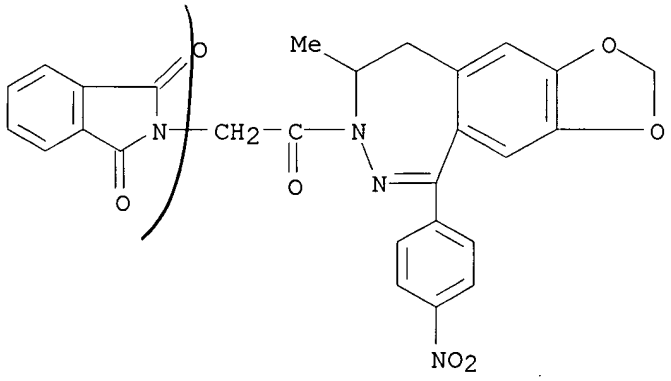
RN 143692-02-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



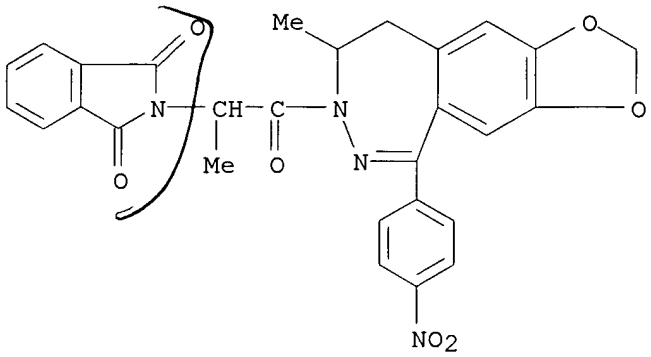
RN 143692-04-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



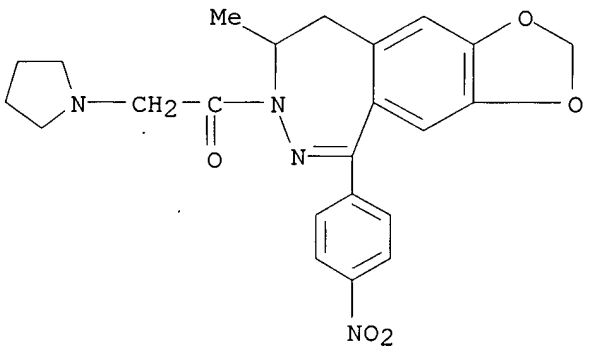
RN 143692-05-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



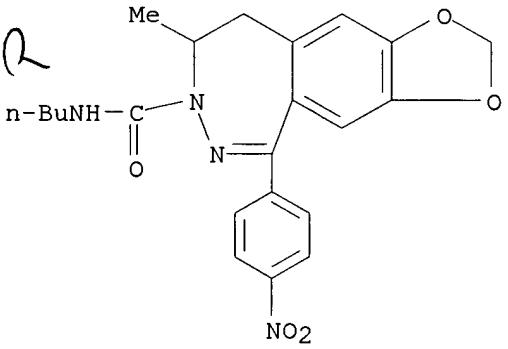
RN 143692-07-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-1-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



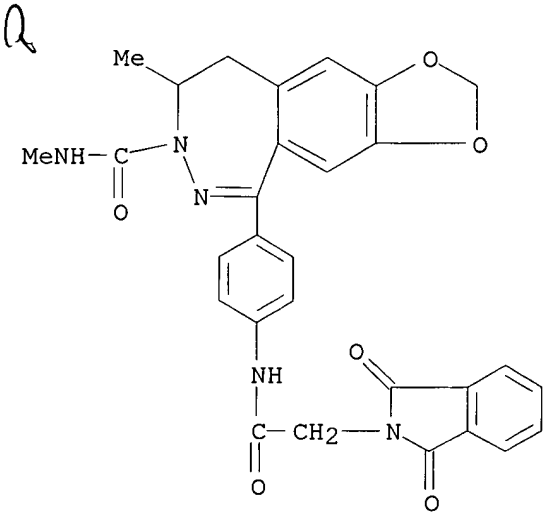
RN 143692-50-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-51-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-butyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

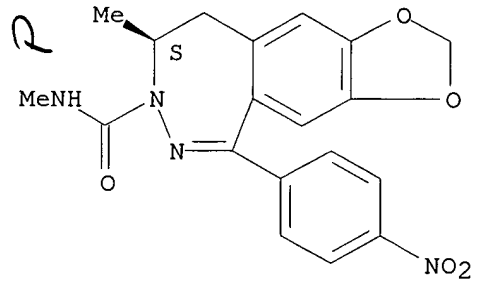


RN 143692-52-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



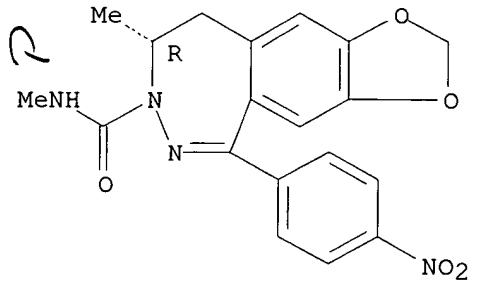
RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



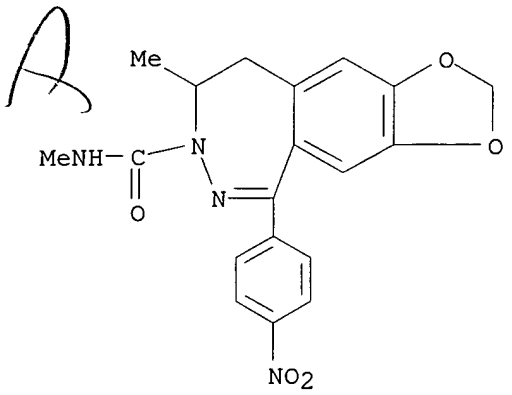
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

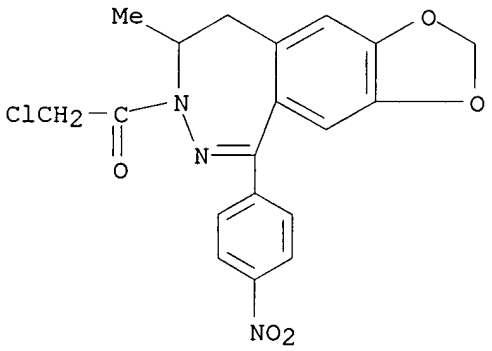


RN 173087-60-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide,

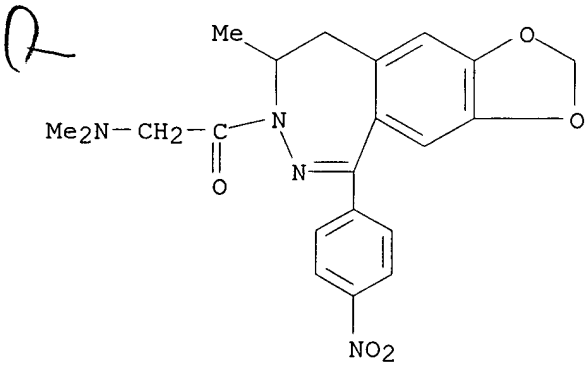
8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



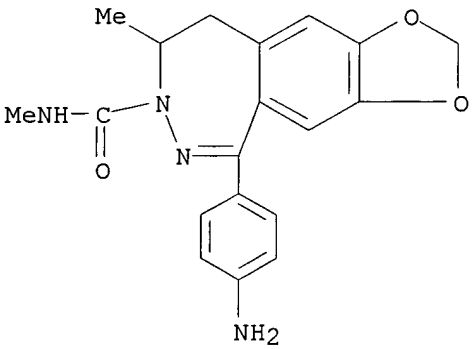
RN 173087-61-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 173087-62-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 27 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:347704 CAPLUS
DN 125:104846
TI Pharmacological characterization of AMPA-induced biting behavior in mice
AU Brambilla, Alessandro; Prudentino, Aida; Grippa, Nicoletta; Borsini, Franco
CS Department of Biology, Boehringer Ingelheim Italia, Via Lorenzini 8, 20139, Milan, Italy
SO Eur. J. Pharmacol. (1996), 305(1-3), 115-117
CODEN: EJPHAZ; ISSN: 0014-2999
DT Journal
LA English
AB The spinal cord dorsal horn contains neural mechanisms which can greatly facilitate pain. It is well established that excitatory amino acids, aspartate and glutamate, are involved in the spinal transmission of nociceptive information and in the development of hyperalgesia. In the present study, intrathecal (i.t.) administration of .alpha.-amino-3-hydroxy-5-methyl-4-isoxazole-propionic acid (AMPA), a structural analog of L-glutamate, produced a dose-dependent behavioral syndrome characterized by caudally directed biting in mice. We demonstrated that peripheral pre-administration of the AMPA receptor antagonists 2,3-dihydroxy-6-nitro-7-sulfamoylbenzo(F)quinoxaline (NBQX, 10-100 mg/kg s.c.) and 1-(4-aminophenyl)-3-methylcarbamoyl-4-methyl-3,4-dihydro-7,8-methylene-diox y-5H-2,3-benzodiazepine-HCl (GYKI 53655, 3-10 mg/kg s.c.), and also of the NMDA receptor antagonist 5-methyl-10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5,10-imine maleate (MK 801, 0.3-1 mg/kg s.c.) reversed this effect. These findings suggest that the hyperalgesia induced by the i.t. injection of AMPA in mice involves the activation of both NMDA and non-NMDA excitatory amino acid receptor sites.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(pharmacol. characterization of AMPA-induced biting behavior)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

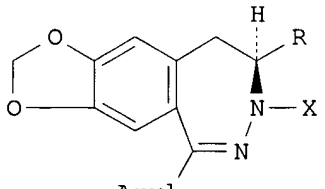


HCl

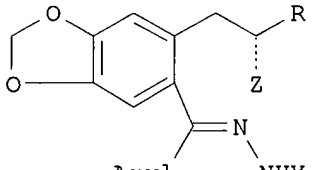
L14 ANSWER 28 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:313499 CAPLUS
DN 125:33693
TI Stereoselective process for producing dihydro-2,3-benzodiazepine derivatives
IN Anderson, Benjamin; Hansen, Marvin Martin; Vicenzi, Jeffrey Thomas; Varie, David Lee; Zmijewski, Milton Joseph
PA Lilly, Eli, and Co., USA
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 699677	A1	19960306	EP 1995-306051	19950830
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	US 5665878	A	19970909	US 1995-413036	19950328
	EP 1157992	A1	20011128	EP 2001-114686	19950830
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
PRAI	US 1994-298645	A	19940831		
	US 1995-413036	A	19950328		
	US 1995-413029	A	19950328		
	EP 1995-930998	A3	19950830		

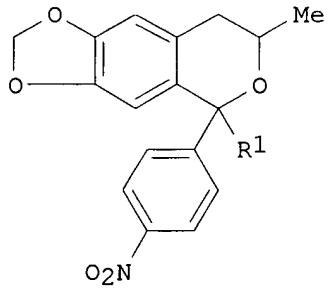
OS CASREACT 125:33693; MARPAT 125:33693
GI



I



II



III

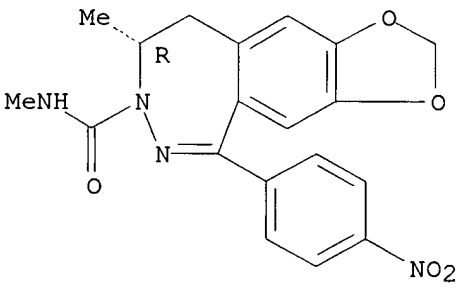
AB A process for stereoselectively forming N-substituted dihydro-2,3 benzodiazepines (I; R = H, C1-10 alkyl; X = H, C1-10 alkyl, acyl, aryl, CO2H, or substituted deriv. thereof, protecting group), which are useful as AMPA receptor antagonists, involves cyclization of a hydrazone (II; Z = leaving atom or group; X, R = same as above). In particular the cyclization is effected (1) by reacting the alc. II (Z = OH; R, X = same

as above) with a sulfonyl halide reagent and a base to form an intermediate sulfonate or (1) by direct Mitsunobu cyclization. Novel intermediates, useful in the process, are also prepd. Thus, microbial redn. of 3,4-methylenedioxyphenylacetone using Zygosaccharomyces rouxii to (S)-.alpha.-methyl-1,3-benzodioxole-5-ethanol (85-90% isolated yield, 100% e.e.) followed by cyclocondensation with p-nitrobenzaldehyde in toluene contg. 1.05 equiv concd. HCl at 55-65.degree. gave a 1,3-dioxolo[4,5-g][2]benzopyran deriv. [(5RS,7S)-III; R = H] (87-93% isolated yield, 100% e.e.). Oxidn. of the latter compd. with air in DMSO/DMF at 8-12.degree. followed by treatment with 50% aq. NaOH and stirring the resulting mixt. for 4.5 h and then acidification with 1 N HCl gave a 1,3-dioxolo[4,5-g][2]benzopyran-5-ol deriv. (5RS,7S)-III (R = OH), which was condensed with H2NNHAc in EtOH contg. concd. HCl to give the hydrazone II (R = Me, Z = HO, Aryl = p-nitrophenyl, X = Ac) (91% yield, 1:1 isomeric mixt.). Mesylation of the latter compd. with methanesulfonyl chloride and Et3N in CH2Cl2 gave the mesylate II (R = Me, Z = OSO2Me, Aryl = p-nitrophenyl, X = Ac) (87% yield, 3:1 isomeric mixt.), which was dissolved in MeOH, treated with 50% aq. NaOH, and stirred for 4 h to give 90% the title compd. I (R = Me, Aryl = p-nitrophenyl, X = Ac) (93% yield, 100% purity). Redn. of the latter compd. with potassium formate in the presence of 10% Pd-C in H2O/EtOH gave the title amine I (R = Me, Aryl = p-aminophenyl, X = Ac) (93% yield, 100% purity).

IT **161832-70-8P 161832-71-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(stereoselective process for producing dihydrobenzodiazepine deriv. as AMPA receptor antagonist)

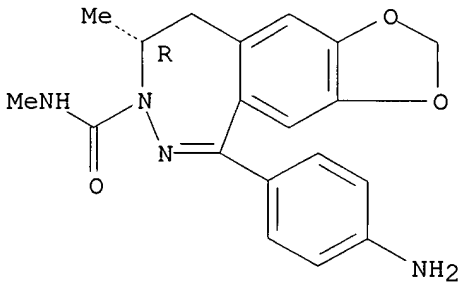
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

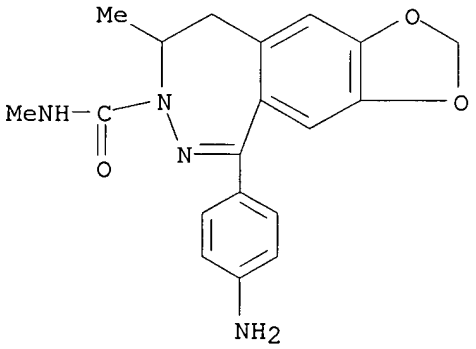


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

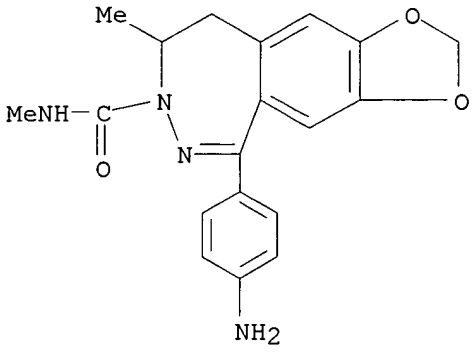

Me
R
MeNH
N
N
O
O
O
NH2

L4 ANSWER 29 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:238529 CAPLUS
DN 124:336978
TI Comparison of chiral separations on polysaccharide chiral stationary phases to an improved Pirkle phase
AU Kennedy, Joseph H.
CS Chemical Process Research and Development, Lilly Research Laboratories, Indianapolis, IN, 46285, USA
SO J. Chromatogr., A (1996), 725(2), 219-24
CODEN: JCRAEY; ISSN: 0021-9673
DT Journal
LA English
AB Polysaccharide chiral stationary phases (CSPs) Chiralcel OD, OJ, Chiralpak AD, AS, and a chem. derived Whelk-O 1 were evaluated for sepn. of different types of racemic compds. When possible, small differences in a structure such as conversion of ketone to alc. were compared to investigate differences in chiral sepn. capabilities of a given CSP. Comparison of sepns. on the Whelk-O 1 and polysaccharide CSPs are presented. Correlations between arom. bulk of a mol. and chiral recognition as well as functional groups on mols. which enhance chiral recognition are discussed.
IT **143692-18-6**
RL: ANT (Analyte); ANST (Analytical study)
(comparison of polysaccharide chiral stationary phases on enantiomeric sepns.)
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



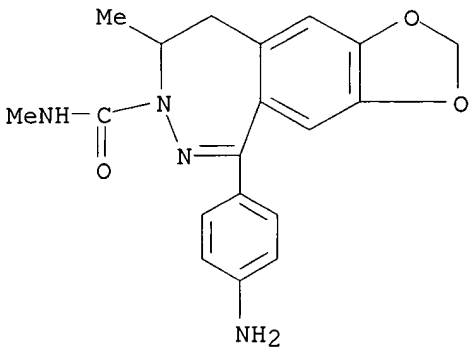
L14 ANSWER 30 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:203494 CAPLUS
DN 124:278974
TI Interactions of 2,3-benzodiazepines and cyclothiazide at AMPA receptors: patch clamp recordings in cultured neurons and area CA1 in hippocampal slices
AU Rammes, Gerhard; Swandulla, Dieter; Collingridge, Graham L.; Hartmann, Sabine; Parsons, Chris G.
CS Inst. Exp. Clinical Pharmacol. Toxicol., Univ. Erlangen, Erlangen, D-91054, Germany
SO Br. J. Pharmacol. (1996), 117(6), 1209-21
CODEN: BJPCBM; ISSN: 0007-1188
DT Journal
LA English
AB The 2,3-benzodiazepines GYKI 52466, GYKI 53405 and GYKI 53655 antagonized AMPA-induced currents in cultured superior colliculus neurons in a non use-dependent manner (steady state IC50s: GYKI 52466 9.8 .mu.M; GYKI 53405 3.1 .mu.M; GYKI 53655 0.8 .mu.M). Higher concns. of all three antagonists slowed the onset kinetics and quickened the offset kinetics of AMPA-induced currents indicative of an allosteric interaction with the AMPA recognition site. Cyclothiazide (3-300 .mu.M) dramatically slowed desensitization of AMPA-induced currents and potentiated steady state currents (EC50 10.0 .mu.M) to a much greater degree than peak currents. Both .tau.on and .tau.off were also increased by cyclothiazide in a concn.-dependent manner (EC50: .tau.on 42.1 .mu.M; .tau.off 31.6 .mu.M). Cyclothiazide (10-100 .mu.M) shifted the concn.-response curves of the 2,3-benzodiazepines to the right. For example, with 10 .mu.M cyclothiazide the IC50s of GYKI 52466 and GYKI 53405 on steady-state AMPA-induced currents were 57.9 and 41.6 .mu.M, resp. GYKI 53405 and GYKI 52466 concn.-dependently reversed the effects of cyclothiazide (100 .mu.M) on offset kinetics (GYK1 53405 IC50 16.6 .mu.M). However, the 2,3-benzodiazepines were unable to reintroduce desensitization in the presence of cyclothiazide and even concn.-dependently slowed the onset kinetics of AMPA responses further (GYKI 53405 EC50 8.0 .mu.M). GYKI 52466 decreased the peak amplitude of hippocampal area CA1 AMPA receptor-mediated excitatory postsynaptic currents (e.p.s.cs) (IC50 10.8 .mu.M) with no apparent effect on response kinetics. Cyclothiazide prolonged the decay time const. of AMPA receptor-mediated e.p.s.cs (EC50 35.7 .mu.M) with less pronounced effects in slowing e.p.s.c. onset kinetics and increasing e.p.s.c. amplitude. Cyclothiazide (330 .mu.M) shifted the concn.-response curve for the effects of GYKI 52466 on AMPA receptor-mediated e.p.s.c. peak amplitude to the right (GYKI 52466 IC50 26.9 .mu.M). Likewise, GYKI 52466 (30-100 .mu.M) shifted the concn.-response curve for the effects of cyclothiazide on AMPA receptor-mediated e.p.s.c. decay time consts. to the right. In conclusion, cyclothiazide and the 2,3-benzodiazepines seem to bind to different sites on AMPA receptors but exert strong allosteric interactions with one another and with other domains such as the agonist recognition site. The interactions of GYKI 52466 and cyclothiazide on AMPA receptor-mediated e.p.s.cs in area CA1 of hippocampal slices provide evidence that the decay time const. of these synaptic events are not governed by desensitization.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interactions of 2,3-benzodiazepines and cyclothiazide at AMPA receptors in cultured neurons and area CA1 in hippocampal slices)
RN 143692-48-2 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L14 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1996:76141 CAPLUS
DN 124:165107
TI Negative allosteric modulation of wild-type and mutant AMPA receptors by GYKI 53655
AU Partin, Kathryn M.; Mayer, Mark L.
CS Lab. Cellular Molecular Neurophysiology, National Inst. Child Health Human Development, Bethesda, MD, 20892-4495, USA
SO Mol. Pharmacol. (1996), 49(1), 142-8
CODEN: MOPMA3; ISSN: 0026-895X
DT Journal
LA English
AB Benzothiadiazides such as cyclothiazide potentiate .alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor responses, whereas 2,3-benzodiazepines such as 1-(4-aminophenyl)-3-methylcarbamy-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (GYKI 53655) act as noncompetitive antagonists; both drugs act through allosteric modulation. Controversy exists as to whether cyclothiazide and GYKI t3655 act at a common site. Recent mutational anal. has led to the identification of a serine residue in flip splice variants that is crit. for directing the interaction of cyclothiazide with AMPA receptors. The authors tested whether the mutation of this residue to glutamine, which abolishes potentiation by cyclothiazide, can in addn. block antagonism by 2,3-benzodiazepines, as would be predicted for action at a common site. The authors found that the S to Q mutation does not alter antagonism by 2,3-benzodiazepines, suggesting that the mol. determinants directing the interaction between GYKI 53655 and AMPA receptors are not identical to those controlling sensitivity to cyclothiazide. Addnl. support for this was obtained from anal. of the responses of AMPA receptor flip/flop splice variants, which, despite differences in equil. desensitization and sensitivity to cyclothiazide, show only small differences in sensitivity to 2,3-benzodiazepines. Furthermore, introduction to the flip exon from GluRA into GluR6, conferred sensitivity to cyclothiazide but did not increase sensitivity to 2,3-benzodiazepines. Of interest, expts. with native AMPA receptors generated from hippocampal and forebrain poly(A)+ mRNA revealed greater sensitivity to 2,3-benzodiazepines than receptors generated by expression of recombinant AMPA receptors, possibly indicating the existence of an unidentified accessory protein or novel receptor subunit.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(neg. allosteric modulation of wild-type and mutant AMPA receptors by GYKI 53655)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

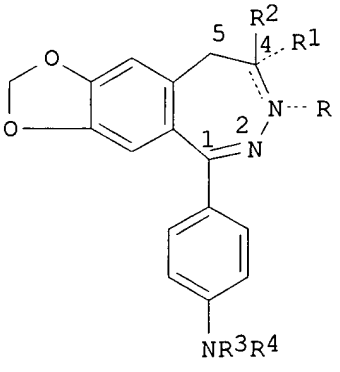


● HCl

L14 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:931616 CAPLUS
DN 124:146210
TI N-acylated 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepines as anticonvulsants, muscle relaxants, and neuroprotective agents
IN Andrasi, Ferenc; Berzsenyi, Pal; Botka, Peter; Farkas, Sandor; Goldschmidt, Katalin; Hamori, Tamas; Korosi, Jeno; Moravcsik, Imre; Tarnawa, Istvan
PA Gyogyszerkutato Intezet Kft, Hung.
SO U.S., 19 pp. Cont.-in-part of U.S. Ser. No. 48, 347, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5459137	A	19951017	US 1993-80604	19930621
	CZ 280769	B6	19960417	CZ 1991-3985	19911220
	US 5604223	A	19970218	US 1995-423032	19950321
	US 5536832	A	19960716	US 1995-423153	19950417
	US 5519019	A	19960521	US 1995-472454	19950607
	US 5521174	A	19960528	US 1995-477799	19950607
	US 5639751	A	19970617	US 1995-477801	19950607
PRAI	US 1991-809361	B2	19911217		
	US 1993-48347	B2	19930415		
	HU 1990-8398	A	19901221		
	US 1993-80604	A	19930621		
	US 1995-423152	B2	19950417		
	US 1995-423166	A2	19950417		
	US 1995-423380	B2	19950417		

OS MARPAT 124:146210
GI



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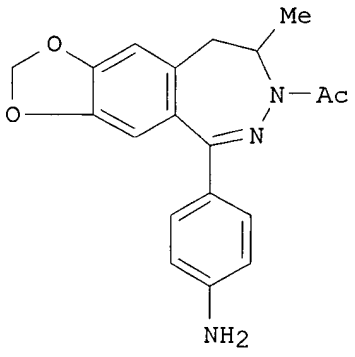


II

AB The invention relates to novel N-acyl-2,3-benzodiezapine derivs. of the general formula I wherein, R is a C1-C6 alkanoyl group optionally substituted by a methoxy, cyano, carboxyl, amino, C1-4 alkylamino, di(C1-4 alkyl)amino, pyrrolidino, phthalimido or Ph group, or by one or more halogen(s); or R is a benzoyl, cyclopropanecarbonyl, C1-C5 alkylcarbamoyl

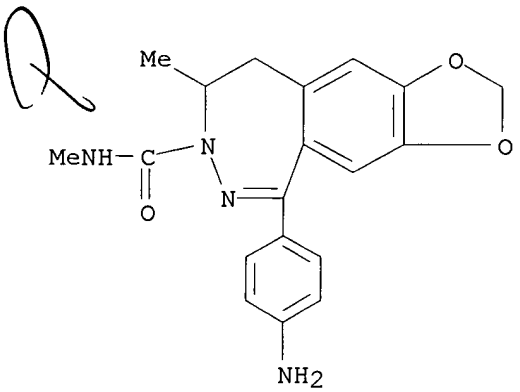
or phenylcarbamoyl group; or R is absent when a double bond exists between the N(3) and C(4) atoms; R1 is hydrogen; or R1 is absent when a double bond exists between the N(3) and C(4) atoms; R2 is a C1-C3 alkyl group; or R1 and R2 together form a methylene group; R3 is hydrogen or a C1-4 alkanoyl group; R4 represents hydrogen; a C1-C6 alkanoyl group optionally substituted by a methoxy, cyano, carboxyl, amino, C1-C4 alkylamino, di(C1-C4 alkyl)amino, pyrrolidino, phthalimido or Ph group or by one or more halogen(s); or a benzoyl, palmitoyl, cyclopropanecarbonyl, C1-C5 alkylcarbamoyl or phenylcarbamoyl group; and the dotted lines represent valence bonds optionally being present, with the proviso that no double bond exists between the N(3) and C(4) atoms when both R3 and R4 stand for hydrogen; their stereoisomers and acid-addn. salts, pharmaceutical compns. contg. them and a process for their prepn. I possess valuable central nervous system effects, particularly muscle-relaxant, anticonvulsive and neuroprotective action. Thus, they may be useful for the treatment of various diseases of central nervous system origin. Thus, e.g., redn. of 1-(4-nitrophenyl)-3-acetyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (prepn. given) with Raney nickel catalyst/hydrazine hydrate afforded 1-(4-aminophenyl)-3-acetyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (II; 77.35%) which exhibited (1) narcosis potentiating effect in mice: ED50 = 3.6 mg/kg p.o.; (2) anticonvulsive effect in mice: ED50 = 12.5 mg/kg p.o. in the electroshock test; (3) muscle-relaxant activity in mice: ED50 = 23.5 mg/kg i.p. in the inclined screen test. In rat neocortex slices II was twice as active as the ref. compd. [1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-5H-2,3-benzodiazepine] in inhibiting the response to the 2-min perfusion with 10 .mu.M of quisqualate (both mols. failed to affect the responses induced by NMDA) and, therefore, II can be considered to be a selective, non-NMDA but quisqualate-type excitatory amino acid antagonist. Pharmaceutical compns. were given.

IT **143692-18-6P**

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(N-acylated 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepines as anticonvulsants, muscle relaxants, and neuroprotective agents)

RN 143692-18-6 CAPLUS

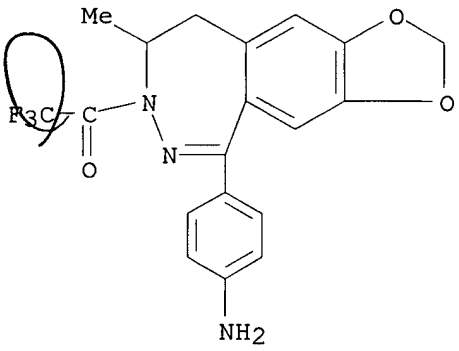
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



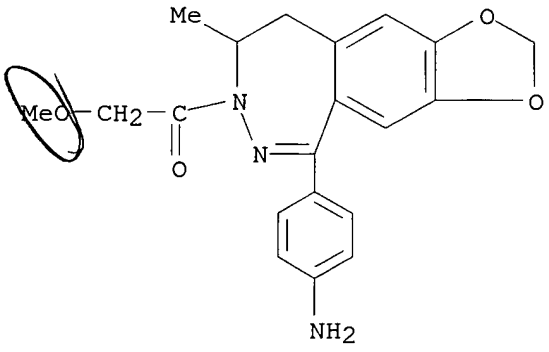
IT **143691-38-7P 143691-45-6P 143691-57-0P**
143691-62-7P 143691-65-0P 143691-71-8P

143691-88-7P 143691-89-8P 143691-90-1P
143691-91-2P 143691-93-4P 143692-19-7P
143692-21-1P 143692-26-6P 143692-32-4P
143692-35-7P 143692-36-8P 143692-37-9P
143692-38-0P 143692-48-2P 143715-46-2P
161832-69-5P 161832-71-9P 173087-57-5P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(N-acylated 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepines as anticonvulsants, muscle relaxants, and neuroprotective agents)

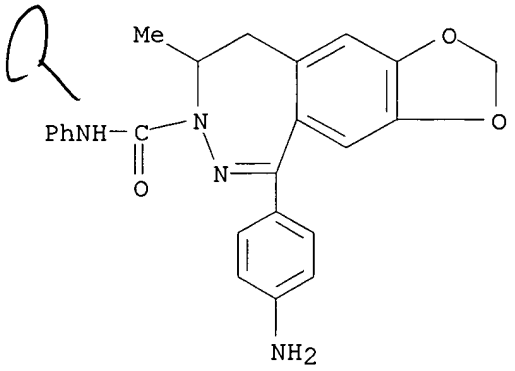
RN 143691-38-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



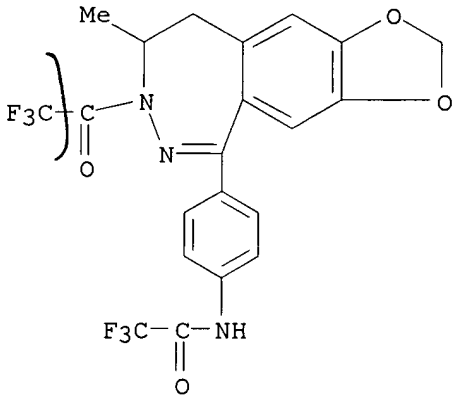
RN 143691-45-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)



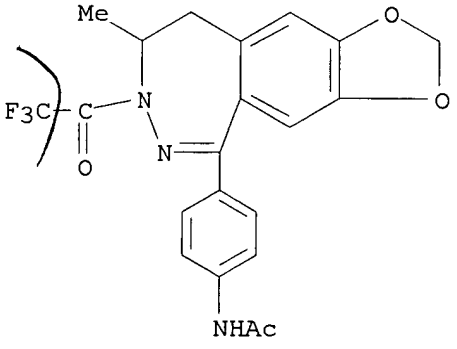
RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)



RN 143691-62-7 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

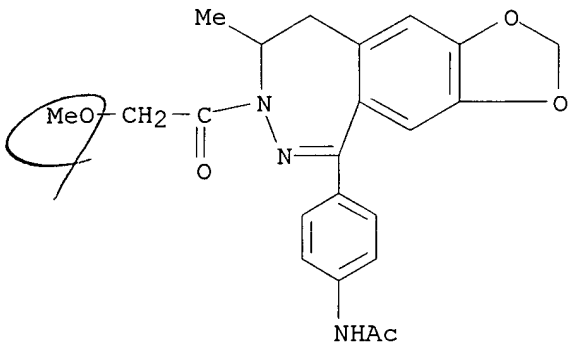


RN 143691-65-0 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

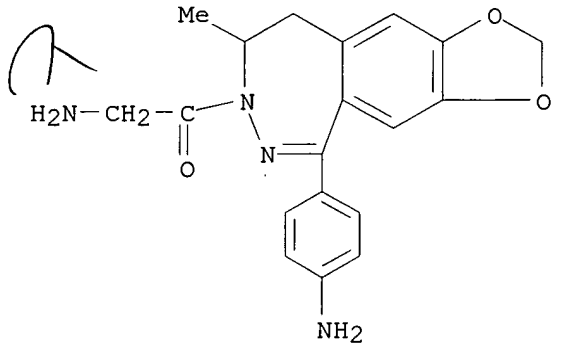


RN 143691-71-8 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-7-(methoxyacetyl)-8-methyl-7H-1,3-dioxolo[4,5-

h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



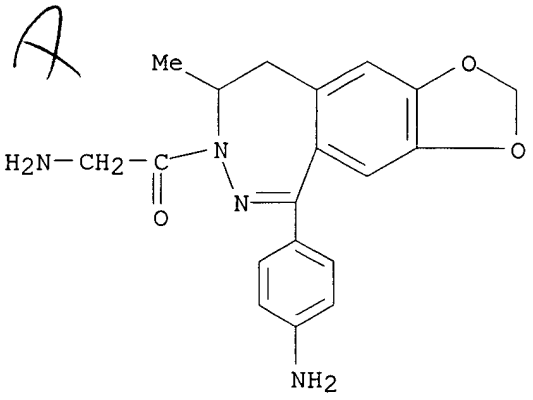
RN 143691-88-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-89-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

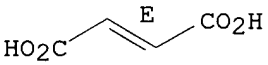
CRN 143691-88-7
CMF C19 H20 N4 O3



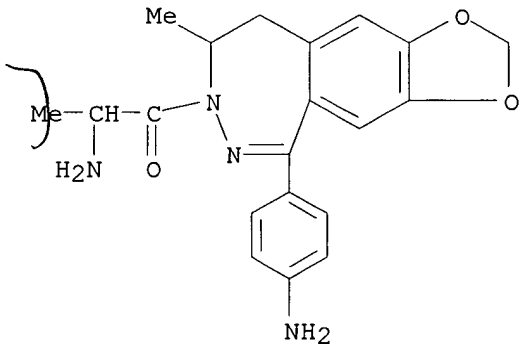
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



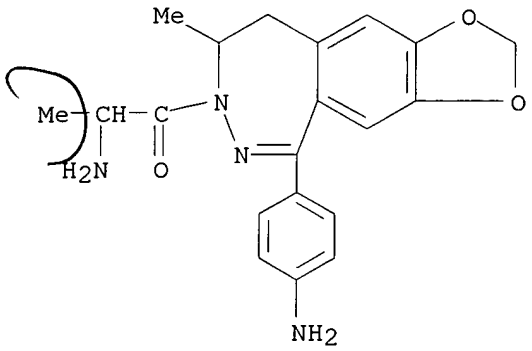
RN 143691-90-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-91-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

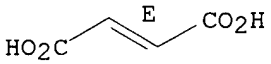
CRN 143691-90-1
CMF C20 H22 N4 O3



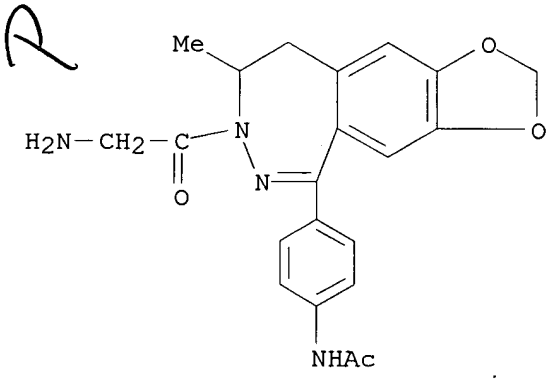
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

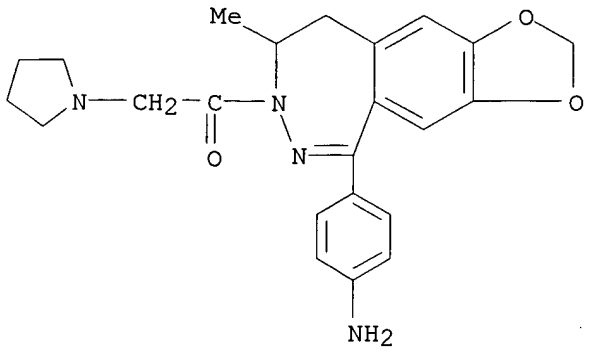
Double bond geometry as shown.



RN 143691-93-4 CAPLUS
CN Acetamide, N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



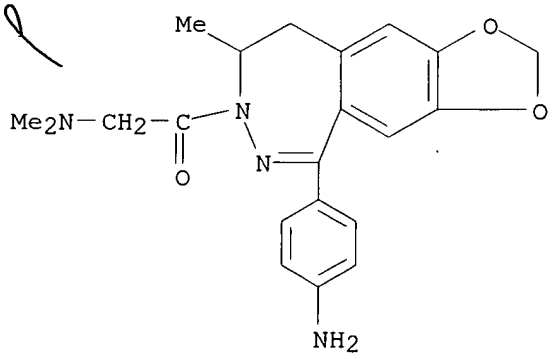
RN 143692-19-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-21-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

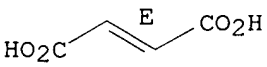
CRN 143692-20-0
CMF C21 H24 N4 O3



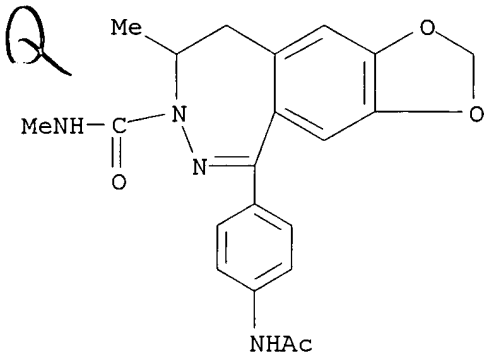
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

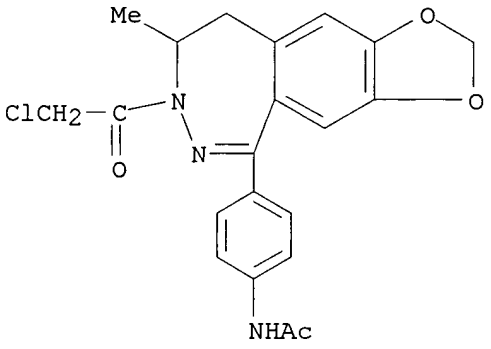
Double bond geometry as shown.



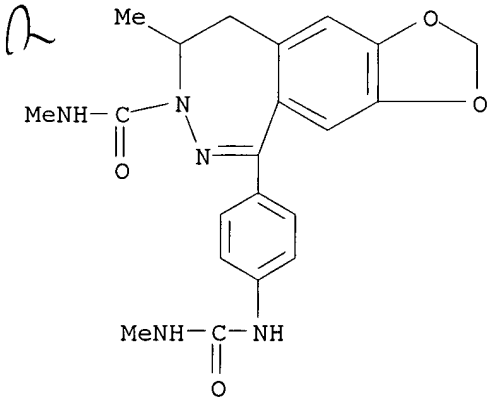
RN 143692-26-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-(acetylamino)phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



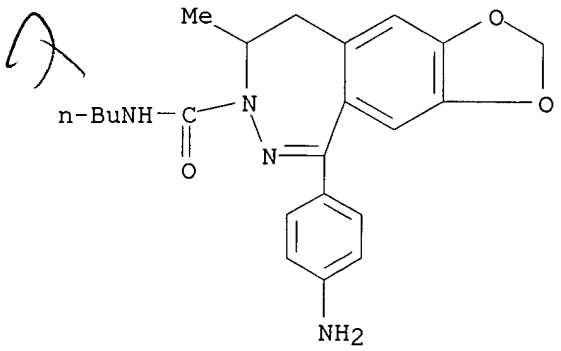
RN 143692-32-4 CAPLUS
CN Acetamide, N-[4-[7-(chloroacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



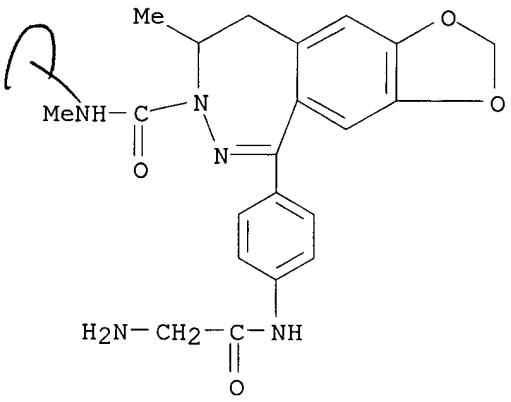
RN 143692-35-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-[4-[[(methylamino)carbonyl]amino]phenyl]- (9CI) (CA INDEX NAME)



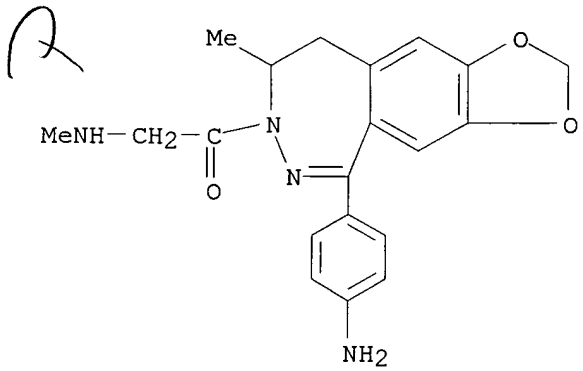
RN 143692-36-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143692-37-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[(aminoacetyl)amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

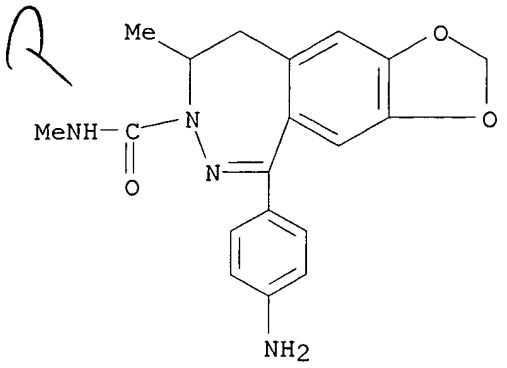


RN 143692-38-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)



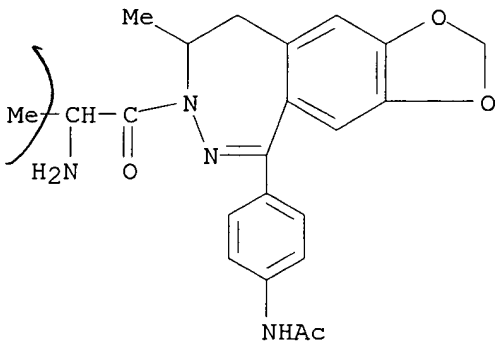
RN 143692-48-2 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



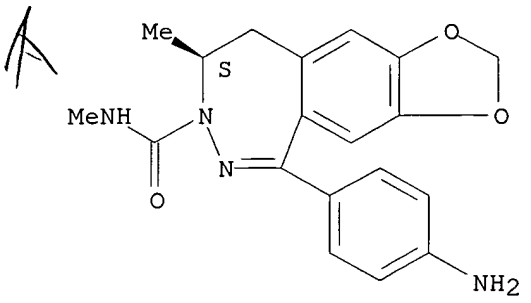
● HCl

RN 143715-46-2 CAPLUS
CN Acetamide, N-[4-[7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



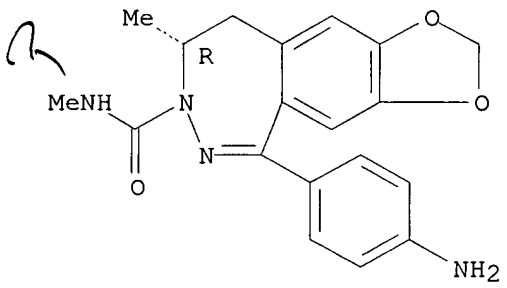
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

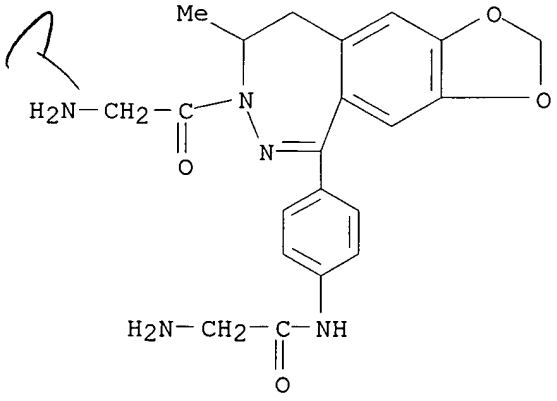


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 173087-57-5 CAPLUS
CN Acetamide, 2-amino-N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

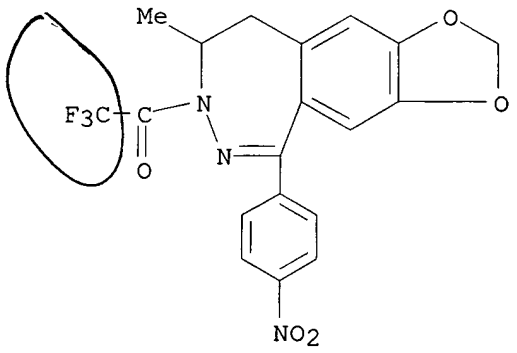


IT **143691-47-8P 143691-55-8P 143692-02-8P**
143692-04-0P 143692-05-1P 143692-07-3P
143692-09-5P 143692-12-0P 143692-13-1P
143692-50-6P 143692-51-7P 143692-52-8P
161832-68-4P 161832-70-8P 173087-60-0P
173087-61-1P 173087-62-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(N-acylated 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepines as anticonvulsants, muscle relaxants, and neuroprotective agents)

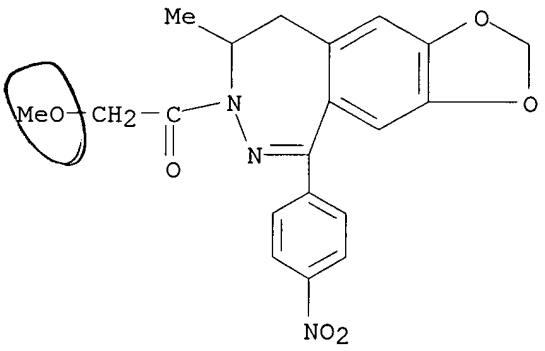
RN 143691-47-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



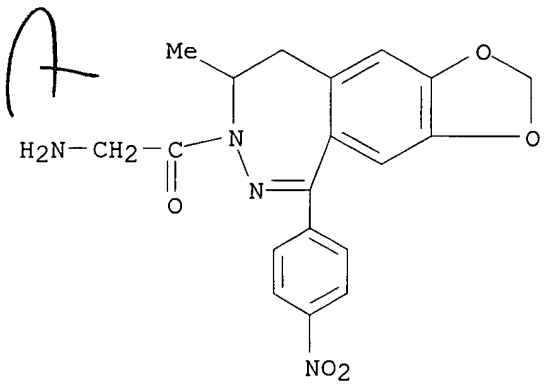
RN 143691-55-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(methoxyacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

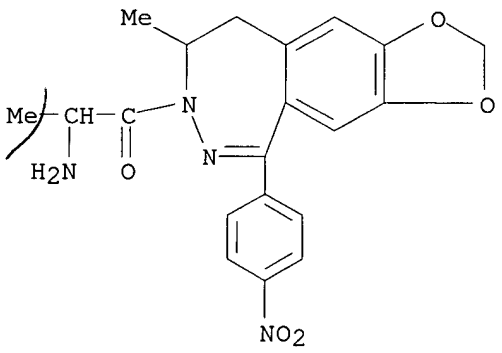


RN 143692-02-8 CAPLUS

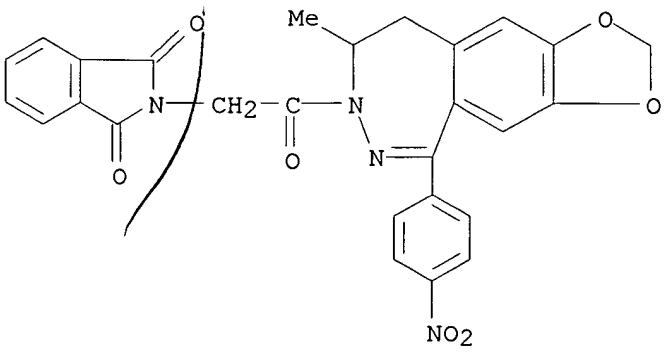
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



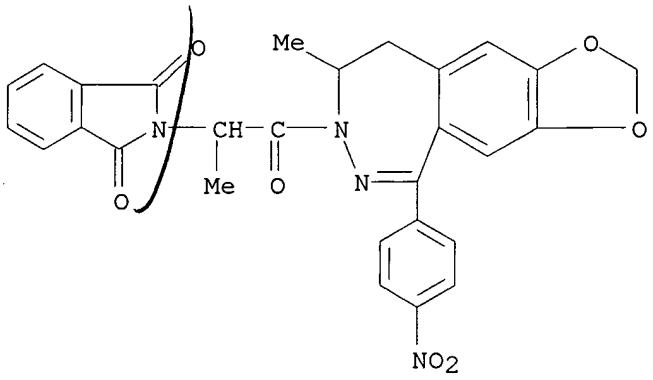
RN 143692-04-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



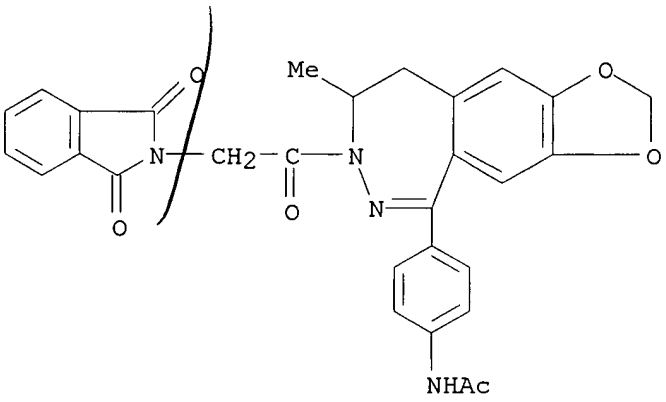
RN 143692-05-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



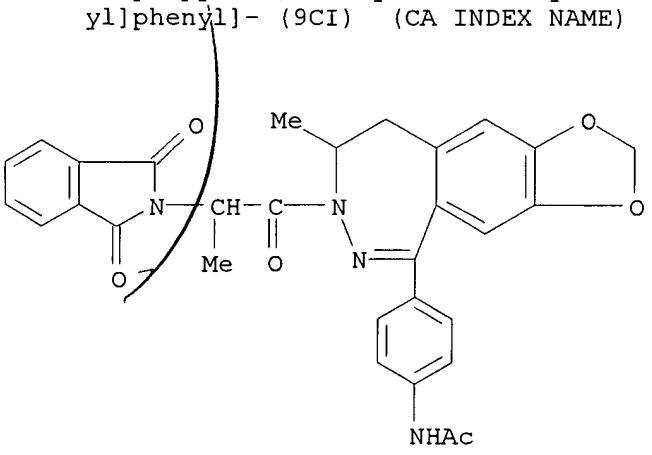
RN 143692-07-3 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-1-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 143692-09-5 CAPLUS
CN Acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

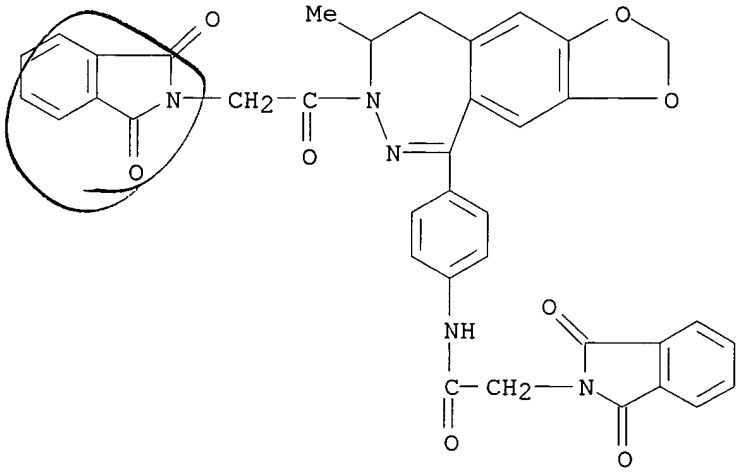


RN 143692-12-0 CAPLUS
CN Acetamide, N-[4-[7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

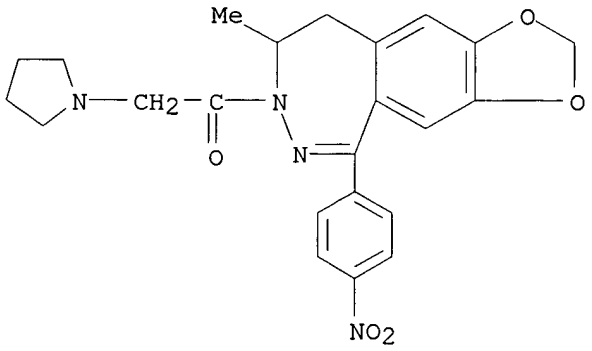


RN 143692-13-1 CAPLUS
CN 2H-Isoindole-2-acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-

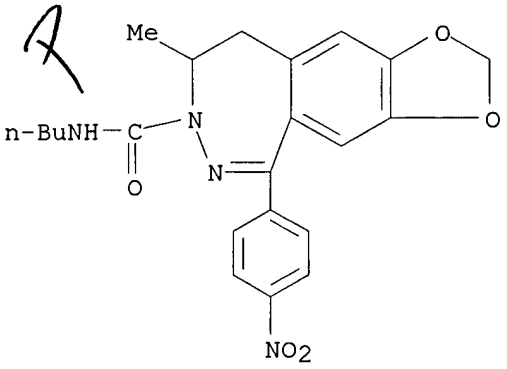
yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



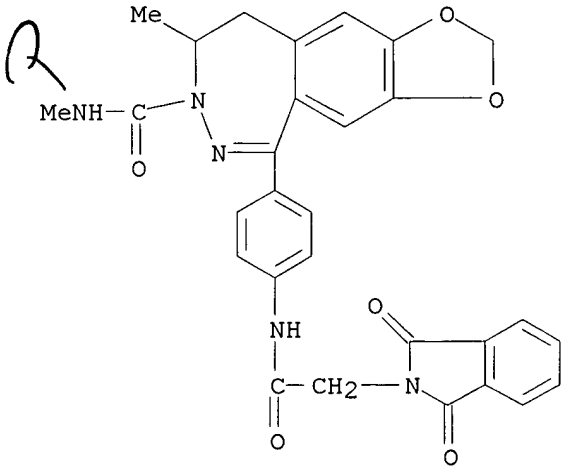
RN 143692-50-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-51-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-butyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

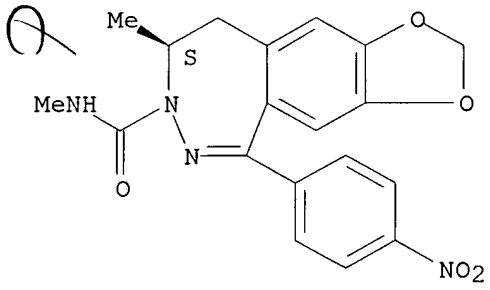


RN 143692-52-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

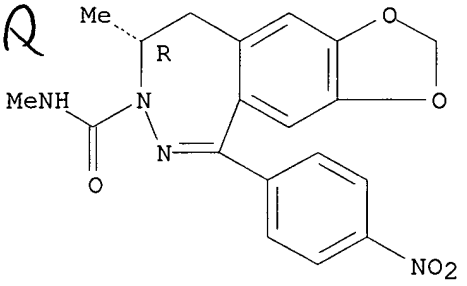
Absolute stereochemistry.



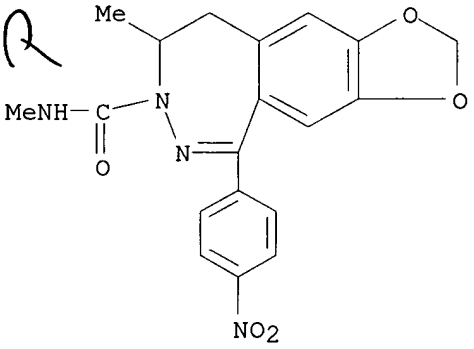
RN 161832-70-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

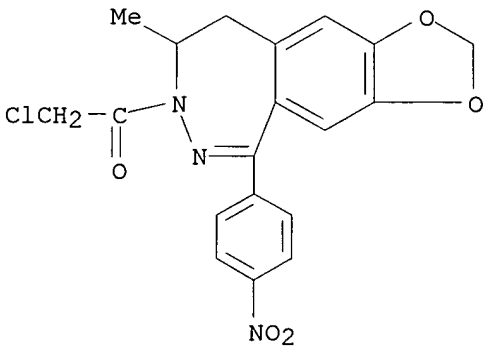
Absolute stereochemistry.



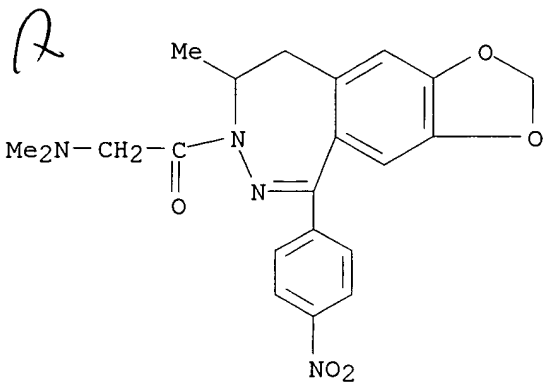
RN 173087-60-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



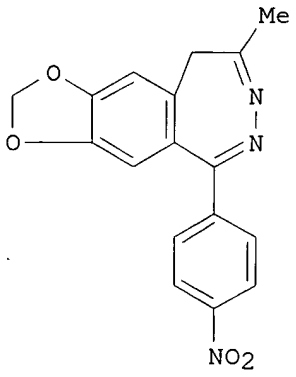
RN 173087-61-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(chloroacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



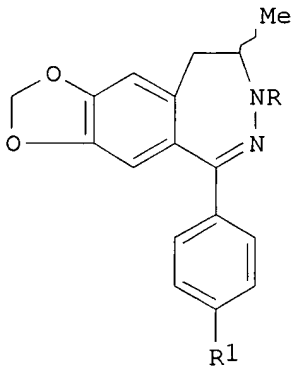
RN 173087-62-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)


Me
O
O
Me2N—CH2—C
N
N
O
NO2

L14 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:628706 CAPLUS
DN 123:285961
TI Asymmetric reduction of a carbon-nitrogen double bond: enantioselective synthesis of 4,5-dihydro-3H-2,3-benzodiazepines
AU Ling, Istvan; Podanyi, Benjamin; Hamori, Tamas; Solyom, Sandor
CS Inst. Drug Res. Lab., Budapest, H-1325, Hung.
SO J. Chem. Soc., Perkin Trans. 1 (1995), (11), 1423-7
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
OS CASREACT 123:285961
GI



I



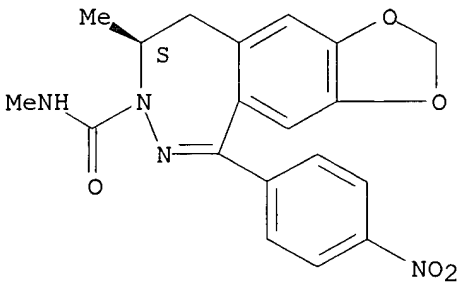
II

AB A highly specific enantioselective redn., elaborated for the redn. of the 3,4-carbon-nitrogen double bond of I, made possible the synthesis of the enantiomers of the potent noncompetitive AMPA/kainate antagonists II (R = Ac, CONHMe; R1 = NH2). E.g., a reducing complex prepd. from (S)-(-)-2-amino-4-methyl-1,1-diphenyl-1-pentanol and BH3.THF was used to reduce I to give 68% (-)-II (R = H, R1 = NO2). NMR Investigations of the reducing complex show that there is no formation of an 1,3,2-oxazaborolidine ring as may have been presumed on the basis of literature data.

IT **161832-68-4P 161832-70-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(enantioselective synthesis of dihydrobenzodiazepines by asym. redn. of a carbon-nitrogen double bond)

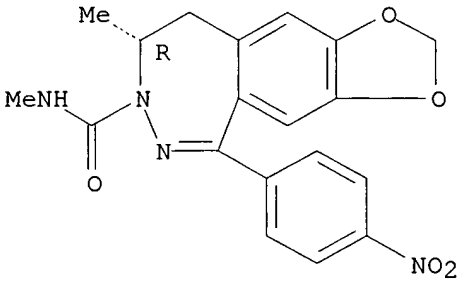
RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



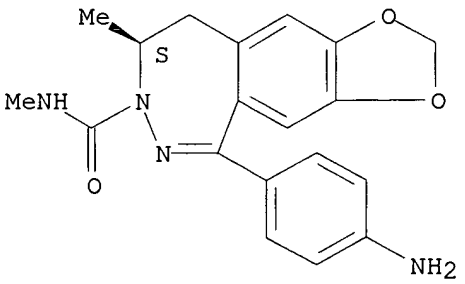
RN 161832-70-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



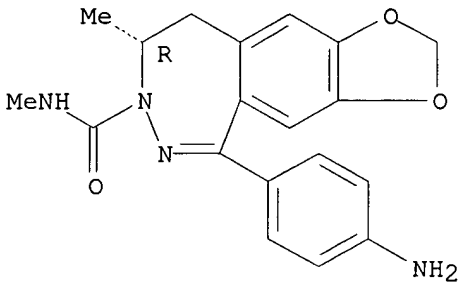
IT **161832-69-5P 161832-71-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(enantioselective synthesis of dihydrobenzodiazepines by asym. redn. of a carbon-nitrogen double bond)
RN 161832-69-5 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

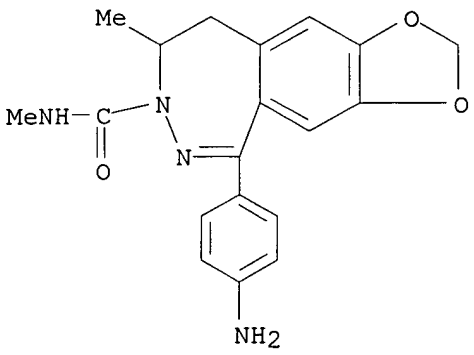


RN 161832-71-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).


Me
R
MeNH
N
N
O
O
O
NH2

L14 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:469736 CAPLUS
DN 122:230664
TI Differential antagonism of .alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid-preferring and kainate-preferring receptors by 2,3-benzodiazepines
AU Wilding, Timothy J.; Huettner, James E.
CS Dep. Cell Biology Physiology, Washington Univ. School Medicine, St. Louis, MO, 63110, USA
SO Mol. Pharmacol. (1995), 47(3), 582-7
CODEN: MOPMA3; ISSN: 0026-895X
DT Journal
LA English
AB Whole-cell recordings were used to study the antagonism of .alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)-preferring and kainate-preferring receptors by 2,3-benzodiazepines. Current through kainate-preferring receptors was recorded in rat dorsal root ganglion (DRG) neurons, whereas AMPA receptor current was measured in cultured neurons from rat cerebral cortex. In both cell types 2,3-benzodiazepines produced noncompetitive inhibition; however, antagonist potency was much higher against AMPA-preferring receptors than against kainate receptors. The most potent compd., 1-(4-aminophenyl)-3-methylcarbamyl-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine (GYKI 53655), blocked AMPA receptor currents with an IC50 of approx. 1 .mu.M. A second benzodiazepine, 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-5H-2,3-benzodiazepine (GYKI 52466), was about 20-fold less potent at AMPA receptors (IC50 = 18 .mu.M). Both drugs were markedly weaker against kainate currents in DRG neurons. At 200 .mu.M, the highest concn. tested, GYKI 53655 and GYKI 52466 produced only 30-40% inhibition in DRG cells, suggesting that for both compds. the IC50 against kainate receptors is >200 .mu.M. Our study suggests that GYKI 53655, at a concn. of approx. 10 .mu.M, should produce >90% block of AMPA-preferring receptors but <5% inhibition of kainate-preferring receptors. Because the antagonism by this drug is noncompetitive, its effectiveness should not be influenced by phasic changes in transmitter concn., making it an ideal compd. for functional studies of the role of kainate and AMPA receptors in synaptic transmission.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(differential antagonism of AMPA-preferring and kainate-preferring receptors by benzodiazepines)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



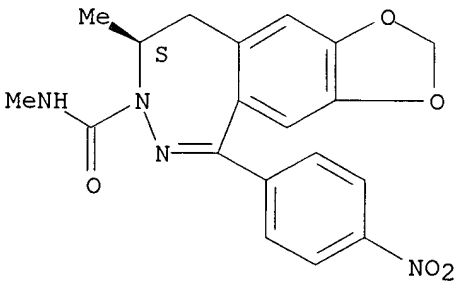
● HCl

L14 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:446748 CAPLUS
DN 122:214111
TI Preparation of optically active 1-(4-nitrophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine
IN Ling, Istvan; Hamori, Tamas; Botka, Peter; Solyom, Sandor; Simay, Antal; Moravcsik, Imre
PA Gyogyszerkutato Intezet, Hung.
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9501357	A1	19950112	WO 1994-HU24	19940630
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	HU 67611	A2	19950428	HU 1993-1922	19930702
	HU 219777	B	20010730		
	AU 9472363	A1	19950124	AU 1994-72363	19940630
PRAI	HU 1993-1922	A	19930702		
	WO 1994-HU24	W	19940630		

OS MARPAT 122:214111
AB (+)- And (-)-enantiomers of the title compd. (I) were prepd. by redn. of 1-(4-nitrophenyl)-4-methyl-7,8-methylenedioxy-5H-2,3-benzodiazepine (II) by an adduct formed from (R)- or(S)-H2NCR1R2CPh2OH (R1,R2 = alkyl, Ph, PhCH2, etc.; R1 .noteq. R2) with 1 mol equiv. of borane or a borane complex. Thus, II was treated with BH3-THF complex in CH2Cl2 contg. (S)-(-)-H2NCMeEtCPh2OH to give 88.6% I comprising (-)-I and (+)-I in 90:10 mol ratio.
IT **161832-68-4P 161832-70-8P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of optically active 1-(4-nitrophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine)
RN 161832-68-4 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (S)- (9CI) (CA INDEX NAME)

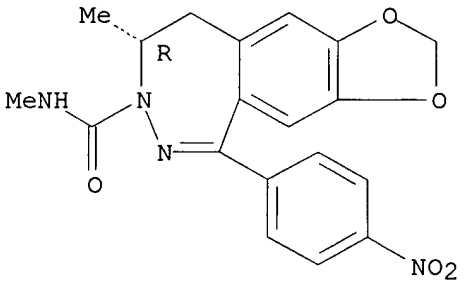
Absolute stereochemistry.



RN 161832-70-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-(4-nitrophenyl)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

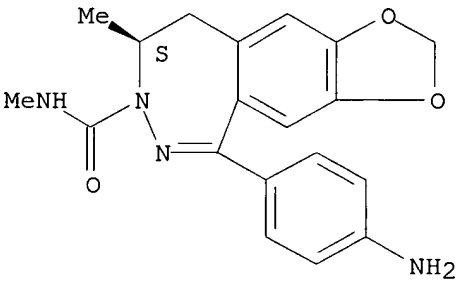


IT **161832-69-5P 161832-71-9P**
RL: PNU (Preparation, unclassified); PREP (Preparation)
(prepn. of optically active 1-(4-nitrophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine)

RN 161832-69-5 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8S)- (9CI) (CA INDEX NAME)

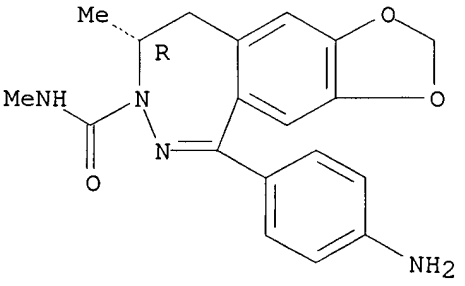
Absolute stereochemistry. Rotation (+).



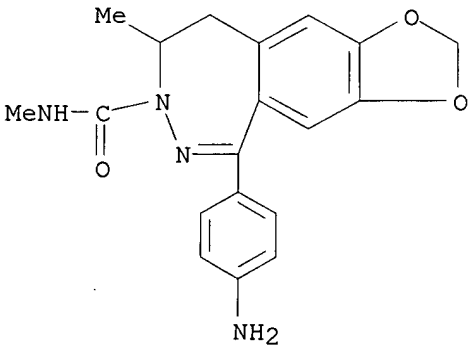
RN 161832-71-9 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, (8R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

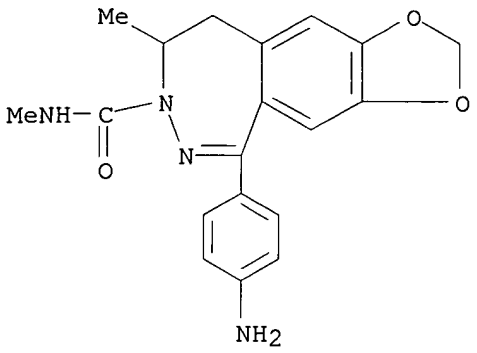


L14 ANSWER 36 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:327008 CAPLUS
DN 122:97039
TI Selective antagonism of AMPA receptors unmasks kainate receptor-mediated responses in hippocampal neurons
AU Paternain, Ana V.; Morales, Miguel; Lerma, Juan
CS Departamento de Plasticidad Neural, Instituto Cajal, Madrid, 28002, Spain
SO Neuron (1995), 14(1), 185-9
CODEN: NERNET; ISSN: 0896-6273
DT Journal
LA English
AB Although both protein and mRNAs for kainate receptor subunits are abundant in several brain regions, the responsiveness of AMPA receptors to kainate has made it difficult to demonstrate the presence of functional kainate-type receptors in native cells. Recently, however, the authors have shown that t many hippocampal neurons in culture express glutamate receptors of the kainate type. The large nondesensitizing response that kainate induces at AMPA receptors precludes detection and anal. of smaller, rapidly desensitizing currents induced by kainate at kainate receptors. Consequently, the functional significance of these strongly desensitizing glutamate receptors remains enigmatic. The authors report here that the family of new noncompetitive antagonists of AMPA receptors (GYKI 52466 and 53655) minimally affects kainate-induced responses at kainate receptors while completely blocking AMPA receptor-mediated currents, making it possible to sep. the responses mediated by each receptor. These compds. will allow detn. of the role played by kainate receptors in synaptic transmission and plasticity in the mammalian brain, as well as evaluation of their involvement in neurotoxicity.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(selective antagonism of AMPA receptors unmasks kainate receptor-mediated responses in hippocampal neurons)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



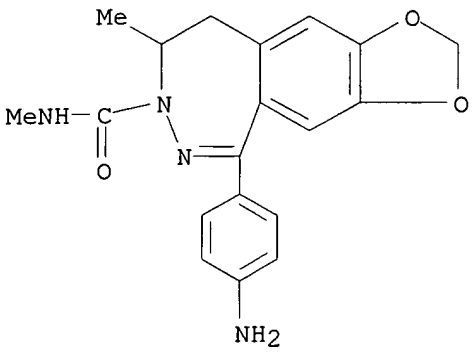
HCl

L14 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:310928 CAPLUS
DN 122:96281
TI Cyclothiazide acts at a site on the .alpha.-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptor complex that does not recognize competitive or noncompetitive AMPA receptor antagonists
AU Desai, Manisha A.; Burnett, J. Paul; Ornstein, Paul L.; Schoepp, Darryle D.
CS Lilly Res. Lab., Eli Lilly and Company, Indianapolis, IN, USA
SO J. Pharmacol. Exp. Ther. (1995), 272(1), 38-43
CODEN: JPETAB; ISSN: 0022-3565
DT Journal
LA English
AB Activation of the .alpha.-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) subtype of ionotropic glutamate receptors by certain agonists, including AMPA and glutamate, has been shown to result in a rapid desensitization of the receptor. This desensitization is profoundly inhibited by the benzothiadiazoide diuretic, cyclothiazide. The authors previously reported that cyclothiazide potentiates AMPA-induced [3H]norepinephrine ([3H]NE) release from rat hippocampal slices. The authors used this system to investigate the possible interaction of cyclothiazide with various AMPA receptor antagonists, including the competitive antagonist LY293558 and the 2,3-benzodiazepine noncompetitive antagonist GYKI 53655. Cyclothiazide significantly potentiated both AMPA- and kainic acid (KA)-induced [3H]NE release from slices of the rat hippocampus. LY293558 and GYKI 53655 inhibited the potentiated and nonpotentiated AMPA- and KA-induced [3H]NE release in a concn.-dependent manner. The IC50 values for inhibition of AMPA- or KA-induced [3H]NE release by either antagonist were not affected by the presence of cyclothiazide. Thus, cyclothiazide seems to interact at a site on the AMPA receptor complex which differs from either the glutamate recognition site or the 2,3-benzodiazepine allosteric site.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(cyclothiazide acts at site on aminohydroxymethylisoxazole propionic acid (AMPA) receptor complex that does not recognize competitive or noncompetitive AMPA receptor antagonists)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



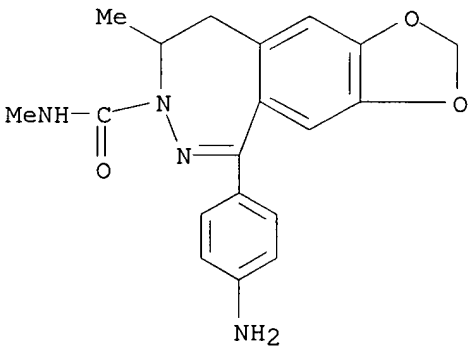
● HCl

L4 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1995:188938 CAPLUS
DN 122:896
TI Non-N-methyl-D-aspartate receptor antagonism by 3-N-substituted 2,3-benzodiazepines: relationship to anticonvulsant activity
AU Donevan, Sean D.; Yamaguchi, Shun-ichi; Rogawski, Michael A.
CS Natl. Inst. Neurol. Disorders Stroke, Natl. Inst. Health, Bethesda, MD, USA
SO J. Pharmacol. Exp. Ther. (1994), 271(1), 25-9
CODEN: JPETAB; ISSN: 0022-3565
DT Journal
LA English
AB Block of AMPA (.alpha.-amino-3-hydroxy-5-methyl-4-isoxazolepropionate) and kainate currents by GYKI 52466 [1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-5H-2,3-benzodiazepine], a noncompetitive non-N-methyl-D-aspartate (AMPA/kainate) receptor antagonist, and two 3-N-substituted 3,4-reduced GYKI 52466 analogs was assessed in whole cell voltage-clamp recordings from cultured rat hippocampal neurons. In addn., the activity of the analogs was detd. in the maximal electroshock seizure test and for protection against kainate-induced seizures in mice. The analogs of GYKI 52466 tested were the 3-N-methylcarbamyl [GYKI 53655; 1-(4-aminophenyl)-3-methylcarbamyl-4-methyl-3,4-dihydro-7,8-methylenedioxy-5H-2,3-benzodiazepine] and the 3-N-acetyl [GYKI 53405; 1-(4-aminophenyl)-3-acetyl-4-methyl-3,4-dihydro-7,8-methylenedioxy-5H-2,3-benzodiazepine]. GYKI 53655 produced a concn.-dependent inhibition of AMPA- and kainate-induced currents with IC50 values of 1.1 and 1.5 .mu.M, resp.; the corresponding values for GYKI 53405 were 3.8 and 5.0 .mu.M. As blockers of AMPA currents, the analogs were 8- and 2.3-fold, resp., more potent than the parent GYKI 52466. Kinetic analyses indicated increased assocn. rates for the two 3-N-substituted analogs (2.5-2.6 .times. 105 M-1 sec-1) compared with GYKI 52466 (1.6 .times. 105 M-1 sec-1). The dissocn. rates of GYKI 52466, GYKI 53405 and GYKI 53655 were inversely correlated with increasing blocking potency (2.9, 1.7 and 0.6 s-1, resp.). Thus, the increased affinity of the 3-N-substituted analogs relates to their increased binding and decreased unbinding rates. In anticonvulsant testing in vivo, GYKI 53655 and GYKI 53405 had ED50 values against kainate (32 mg/kg s.c.) seizures of 4.6 and 7.5 mg/kg i.p., compared with 8.4 mg/kg for GYKI 52466. The corresponding values in the maximal electroshock seizure test were 4.6 and 5.9 mg/kg, compared with 11.8 mg/kg for GYKI 52466. The rank order of potencies of the three compds. in vivo corresponds with their in vitro potencies, supporting the view that the anticonvulsant activity is related to blockade of non-N-methyl-D-aspartate receptors.
IT **143692-48-2**, GYKI 53655
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(non-NMDA receptor antagonism by 3-N-substituted 2,3-benzodiazepines: relationship to anticonvulsant activity)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

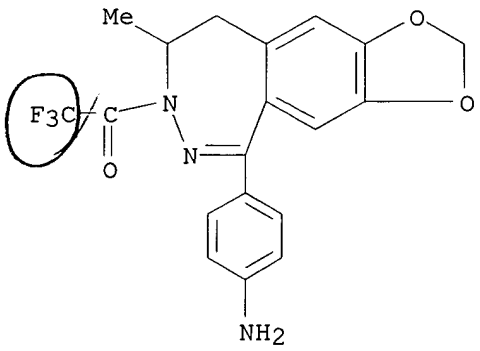
L14 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1994:525058 CAPLUS
DN 121:125058
TI A comparison of intravenous NBQX and GYKI 53655 as AMPA antagonists in the rat spinal cord
AU Chizh, Boris A.; Cumberbatch, Michael J.; Headley, P. Max
CS School of Medical Sciences, University of Bristol, Bristol, BS8 1TD, UK
SO Br. J. Pharmacol. (1994), 112(3), 843-6
CODEN: BJPCBM; ISSN: 0007-1188
DT Journal
LA English
AB The effects of i.v. administration of two .alpha.-amino-3-hydroxy-5-methylisoxazole-4-propionic acid (AMPA) antagonists were studied on responses of single neurons to iontophoretically applied excitatory amino acids. The tests were performed on spinal neurons in .alpha.-chloralose anesthetized, spinalized rats. Both the quinoxaline, NBQX (2-16 mg kg-1) and the 2,3-benzodiazepine, GYKI 53655 (2-8 mg kg-1) dose-dependently decreased responses to AMPA. Both compds. were short acting, with half-recovery times of 15 min for NBQX and 7 min for GYKI 53655. The selectivity for responses to AMPA over those to N-methyl-D-aspartate (NMDA) was significantly poorer for systemic NBQX than for either systemic GYKI 53655 or iontophoretic NBQX, suggesting that systemic NBQX may be converted to a less selective metabolite. GYKI 53655 is therefore likely to be a more valuable tool than NBQX for the study of AMPA receptor-mediated processes in vivo.
IT **143692-48-2**, GYKI 53655
RL: BIOL (Biological study)
(AMPA antagonist, in spinal cord, NBQX comparison with)
RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



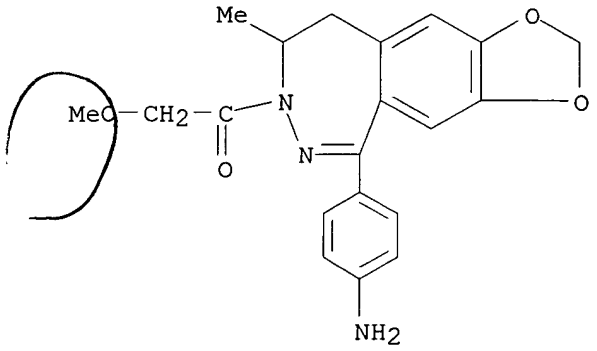
● HCl

L4 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1993:183232 CAPLUS
DN 118:183232
TI Cyclothiazide reverses AMPA receptor antagonism of the 2,3-benzodiazepine, GYKI 53655
AU Palmer, Andrew J.; Lodge, David
CS Dep. Vet. Basic Sci., R. Vet. Coll., London, NW1 0TU, UK
SO Eur. J. Pharmacol., Mol. Pharmacol. Sect. (1993), 244(2), 193-4
CODEN: EJPPET; ISSN: 0922-4106
DT Journal
LA English
AB On rat cortical slices, cyclothiazide, 1-100 .mu.M, (ED50 = 7.1 .mu.M) enhanced the depolarizing action of .alpha.-amino-3-hydroxy-5-methylisoxazole-4-propionate (AMPA) but not that of N-methyl-D-aspartate (NMDA). Cyclothiazide 10 .mu.M also reversed the action of a 2,3-benzodiazepine, GYKI 53655, which is a non-competitive AMPA receptor antagonist, but not that of the quinoxalinedione, NBQX, which is a competitive AMPA receptor antagonist.
IT **146908-67-0**, GYKI 53655
RL: BIOL (Biological study)
(AMPA receptor antagonism of, cyclothiazide reversal of)
RN 146908-67-0 CAPLUS

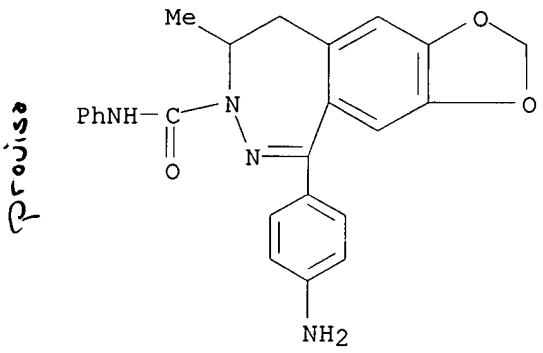
L14 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1993:139236 CAPLUS
DN 118:139236
TI Structure-activity relationships of 2,3-benzodiazepine compounds with glutamate antagonistic action
AU Tarnawa, Istvan; Berzsenyi, Pal; Andrasi, Ferenc; Botka, Peter; Hamori, Tamas; Ling, Istvan; Korosi, Jeno
CS Inst. Drug Res., Budapest, H-1325, Hung.
SO Bioorg. Med. Chem. Lett. (1993), 3(1), 99-104
CODEN: BMCLE8; ISSN: 0960-894X
DT Journal
LA English
AB A series of N-substituted 1-(4'-aminophenyl)-4-methyl-3,4-dihydro-7,8-methylenedioxy-5H-2,3-benzodiazepines, structural analogs of the selective non-NMDA antagonist GYKI 52466, have been synthesized and tested for biol. activity, in vivo and in vitro.
IT **143691-38-7 143691-45-6 143691-57-0**
143691-88-7 143691-90-1 143692-18-6
143692-20-0 143692-36-8 143692-38-0
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(as GYKI 52466 benzodiazepine analogs, glutamate antagonist activity of, structure in relation to)
RN 143691-38-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



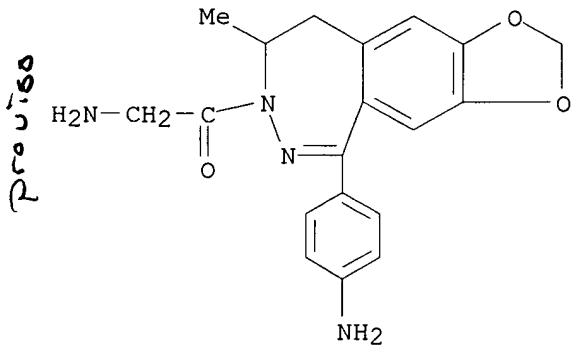
RN 143691-45-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)



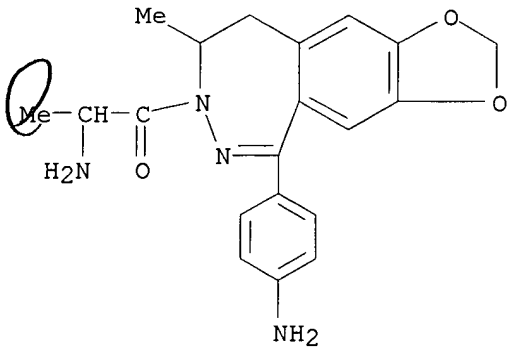
RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)



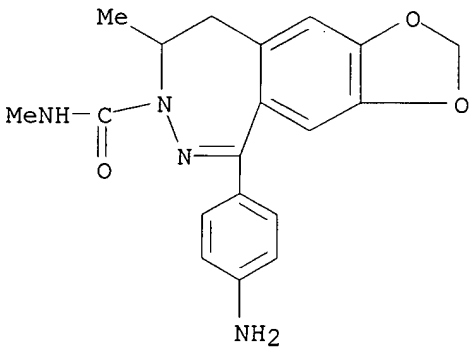
RN 143691-88-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



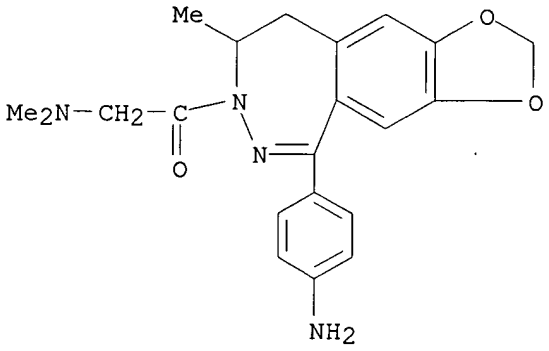
RN 143691-90-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



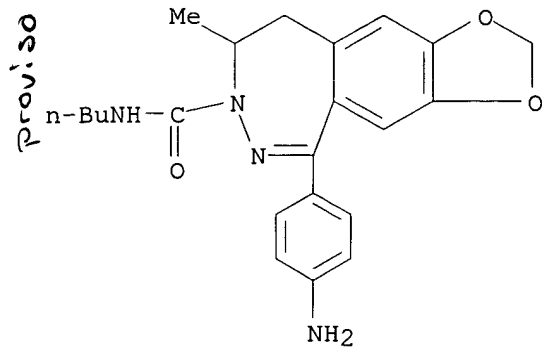
RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)



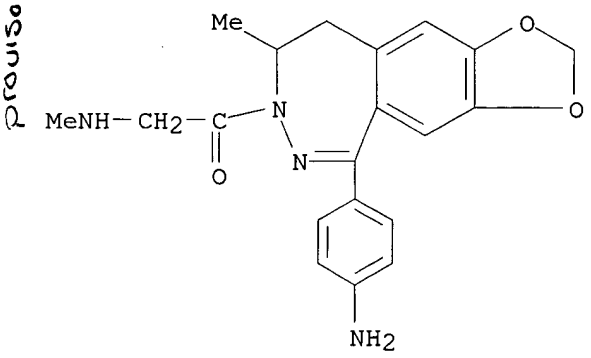
RN 143692-20-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143692-36-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143692-38-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)



L14 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2002 ACS
AN 1992:571479 CAPLUS
DN 117:171479
TI Preparation of 1-(4-aminophenyl)-7,8-methylenedioxy-2,3-benzodiazepines as muscle relaxants, anticonvulsants, and cerebral antiischemics
IN Andrasi, Ferenc; Berzsenyi, Pal; Botka, Peter; Farkas, Sandor; Goldschmidt, Katalin; Hamori, Tamas; Korosi, Jeno; Moravcsik, Imre; Tarnawa, Istvan
PA Gyogyszerkutato Intezet, Hung.
SO Eur. Pat. Appl., 47 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 492485	A1	19920701	EP 1991-121882	19911223
	EP 492485	B1	19971119		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	HU 59684	A2	19920629	HU 1990-8398	19901221
	HU 219778	B	20010730		
	CA 2057504	AA	19920622	CA 1991-2057504	19911212
	BR 9105517	A	19920901	BR 1991-5517	19911219
	RU 2102387	C1	19980120	RU 1991-5010635	19911219
	FI 9106032	A	19920622	FI 1991-6032	19911220
	NO 9105060	A	19920622	NO 1991-5060	19911220
	AU 9189963	A1	19920625	AU 1991-89963	19911220
	AU 641578	B2	19930923		
	CN 1062730	A	19920715	CN 1991-111088	19911220
	CN 1041420	B	19981230		
	ZA 9110064	A	19921028	ZA 1991-10064	19911220
	JP 05070463	A2	19930323	JP 1991-354972	19911220
	JP 2756742	B2	19980525		
	IL 100449	A1	19951231	IL 1991-100449	19911220
	AT 160350	E	19971215	AT 1991-121882	19911223
	ES 2112848	T3	19980416	ES 1991-121882	19911223
	CN 1191111	A	19980826	CN 1998-103976	19980110
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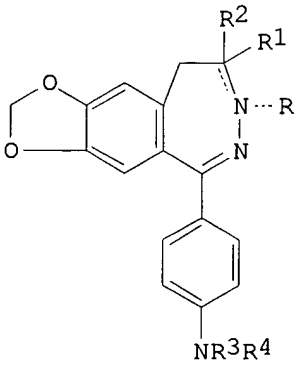
OS MARPAT 117:171479
GI



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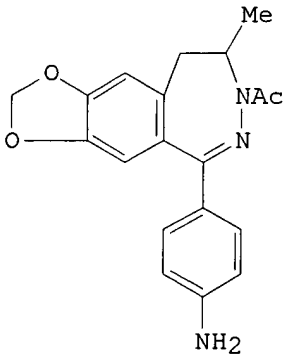


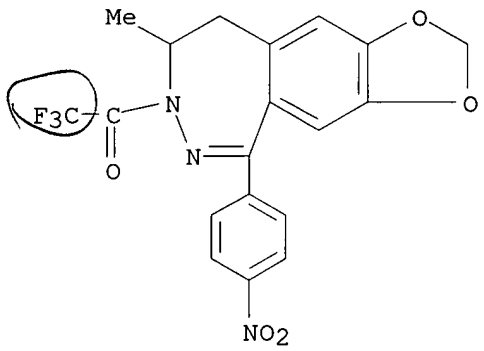
II

AB Title compds. [I; R = null, (substituted) aliph. acyl, PhCO, cyclopropanecarbonyl, alkylcarbamoyl, phenylcarbamoyl; R1 = H, null; R2 = C1-3 alkyl; R1R2 = CH2; R3 = H, aliph. acyl; R4 = H, (substituted) aliph. acyl, PhCO, palmitoyl, cyclopropanecarbonyl, alkylcarbamoyl, phenylcarbamoyl; dotted lines = optional double bonds] were prepd. Thus, 1-(4-aminophenyl)-4-methyl-7,8-methylenedioxy-3,4-dihydro-5H-2,3-benzodiazepine in CHCl3 was treated with Et3N and then Ac2O under ice cooling; the mixt. was stirred 2 h to give 85.7% title compd. II. II potentiated Na hexobarbital narcosis in mice with ED50 = 3-6 mg/kg orally, and inhibited electroshock-induced convulsion in mice with ED50 = 12.5 mg/kg orally. Tablets were prepd. contg. II.

IT **143691-47-8P 143691-55-8P 143692-02-8P**
143692-04-0P 143692-05-1P 143692-07-3P
143692-09-5P 143692-12-0P 143692-13-1P
143692-51-7P 143692-52-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for muscle relaxant and anticonvulsant)

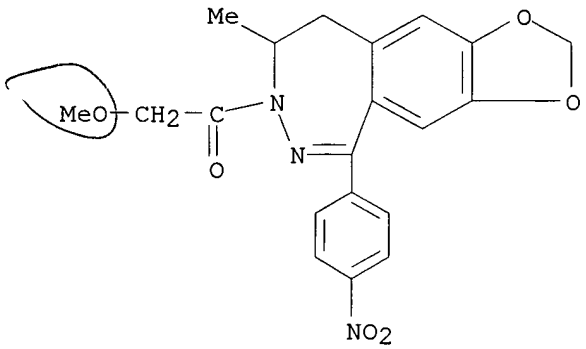
RN 143691-47-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)



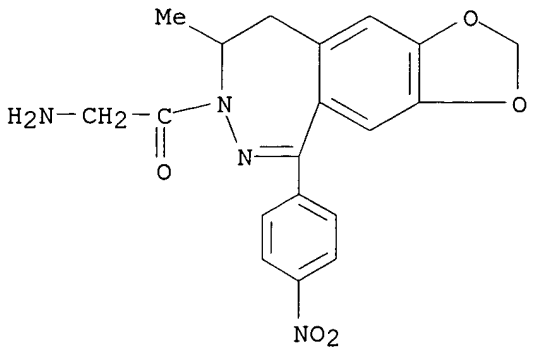
RN 143691-55-8 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-7-(methoxyacetyl)-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

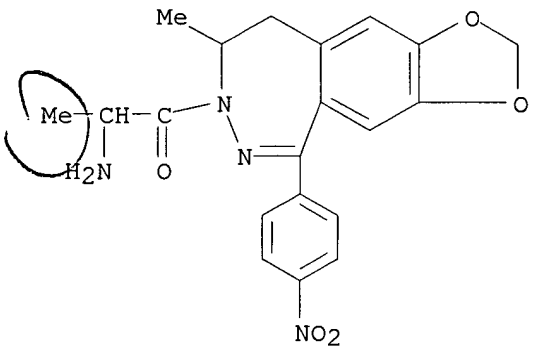


RN 143692-02-8 CAPLUS

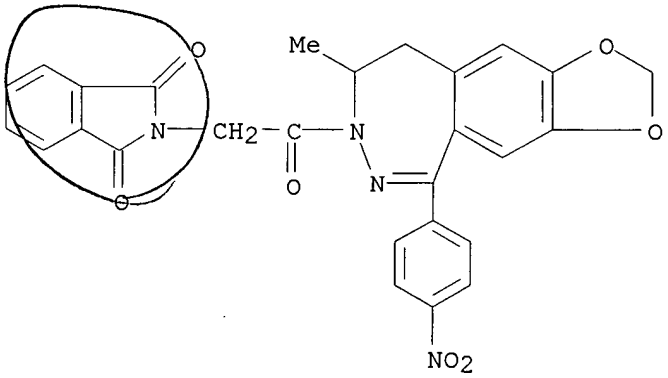
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 143692-04-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

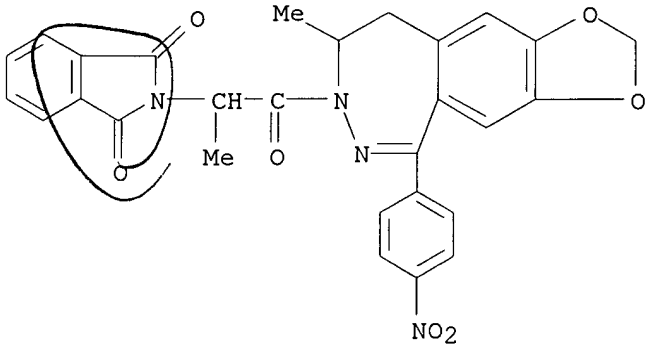


RN 143692-05-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

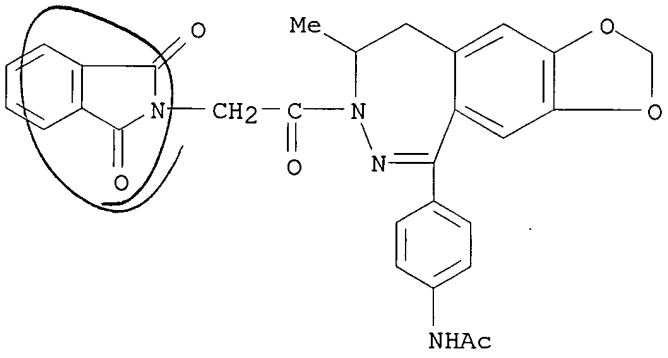


RN 143692-07-3 CAPLUS

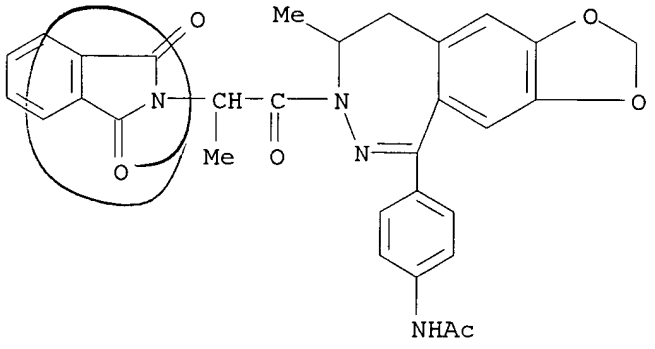
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-1-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



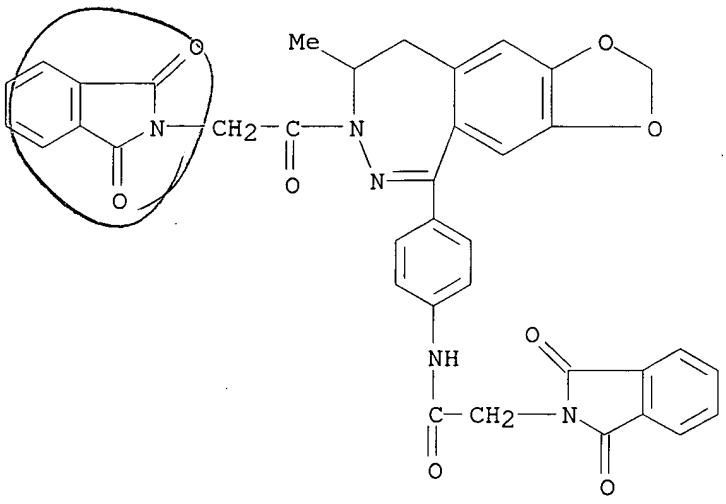
RN 143692-09-5 CAPLUS
CN Acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



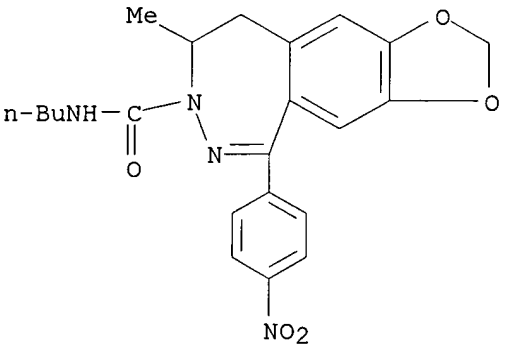
RN 143692-12-0 CAPLUS
CN Acetamide, N-[4-[7-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 143692-13-1 CAPLUS
CN 2H-Isoindole-2-acetamide, N-[4-[7-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)

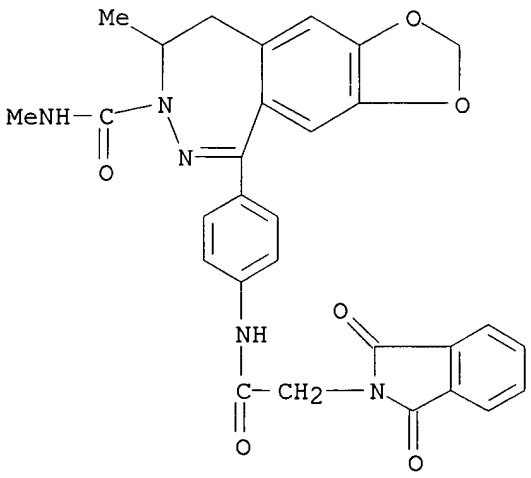


RN 143692-51-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, N-butyl-8,9-dihydro-8-methyl-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 143692-52-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)acetyl]amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

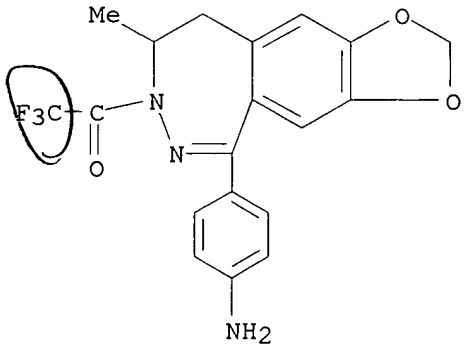
Provided



IT **143691-38-7P 143691-45-6P 143691-57-0P**
143691-62-7P 143691-65-0P 143691-71-8P
143691-88-7P 143691-89-8P 143691-91-2P
143691-93-4P 143692-18-6P 143692-19-7P
143692-21-1P 143692-26-6P 143692-32-4P
143692-35-7P 143692-36-8P 143692-37-9P
143692-38-0P 143692-48-2P 143715-46-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as muscle relaxant and anticonvulsant)

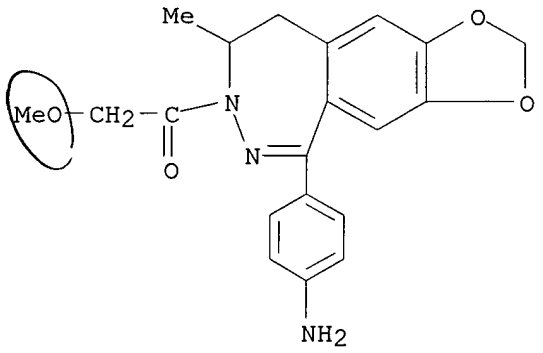
RN 143691-38-7 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(trifluoroacetyl)- (9CI) (CA INDEX NAME)

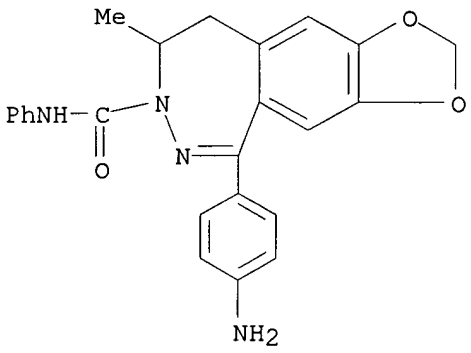


RN 143691-45-6 CAPLUS

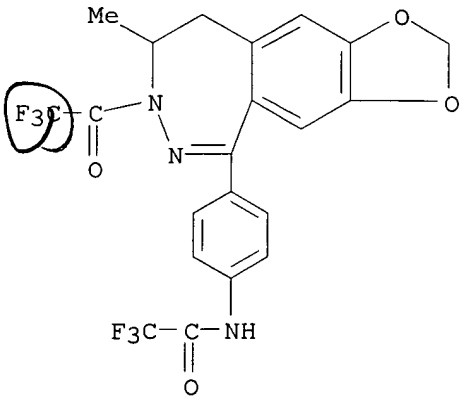
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-7-(methoxyacetyl)-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-57-0 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-N-phenyl- (9CI) (CA INDEX NAME)

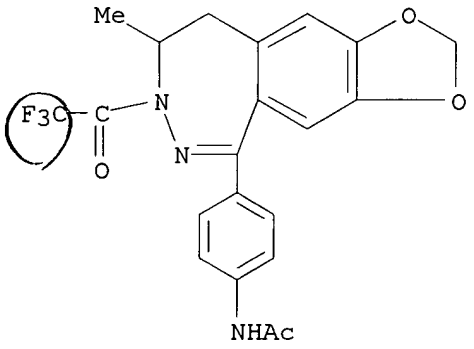


RN 143691-62-7 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

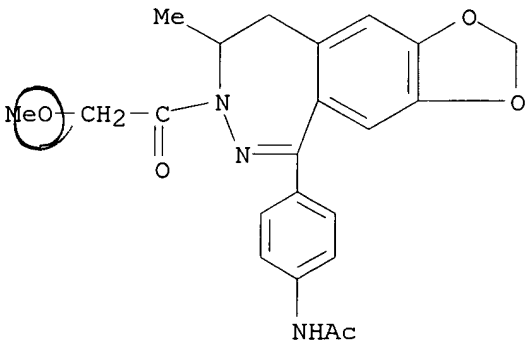


RN 143691-65-0 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-8-methyl-7-(trifluoroacetyl)-7H-1,3-

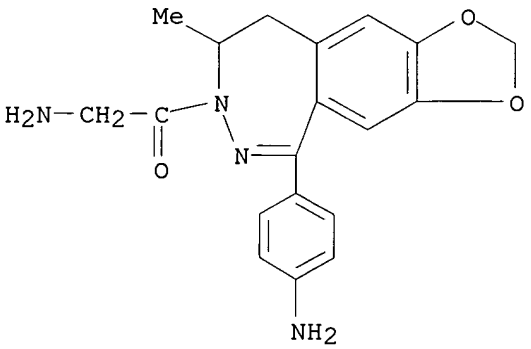
dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 143691-71-8 CAPLUS
CN Acetamide, N-[4-[8,9-dihydro-7-(methoxyacetyl)-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 143691-88-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)



RN 143691-89-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(aminoacetyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA

INDEX NAME)

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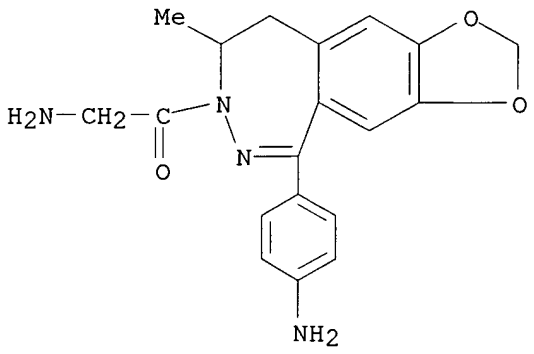
CRN 143691-88-7
CMF C19 H20 N4 O3

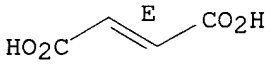
prov; so



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

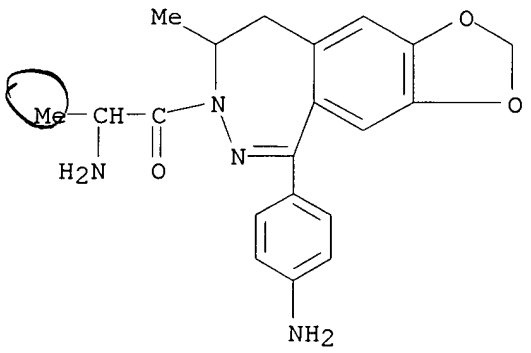
Double bond geometry as shown.



RN 143691-91-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 7-(2-amino-1-oxopropyl)-5-(4-aminophenyl)-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

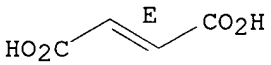
CRN 143691-90-1
CMF C20 H22 N4 O3



CM 2

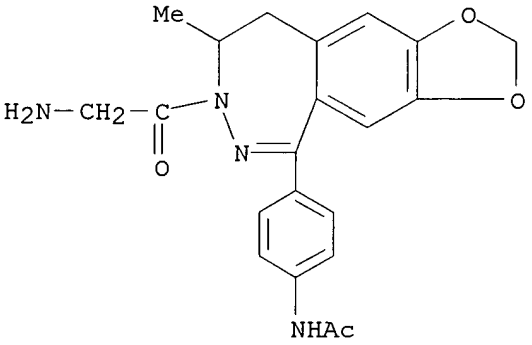
CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



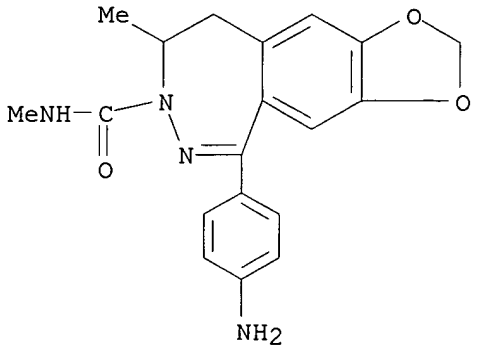
RN 143691-93-4 CAPLUS
CN Acetamide, N-[4-[7-(aminoacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

Provisó

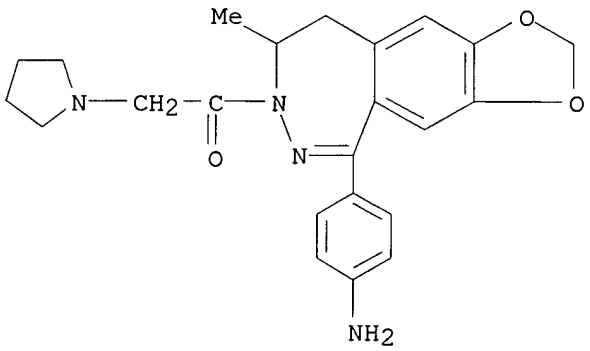


RN 143692-18-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

proviso



RN 143692-19-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)



RN 143692-21-1 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-7-[(dimethylamino)acetyl]-8,9-dihydro-8-methyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

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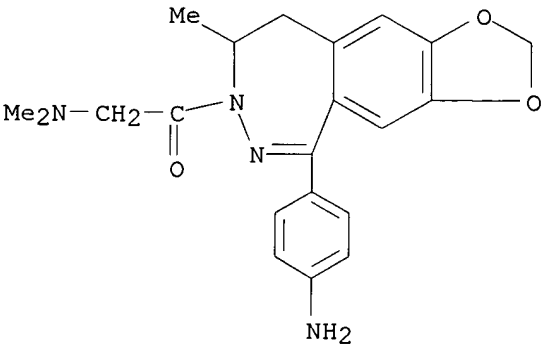
CRN 143692-20-0
CMF C21 H24 N4 O3

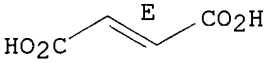
proviso



CM 2

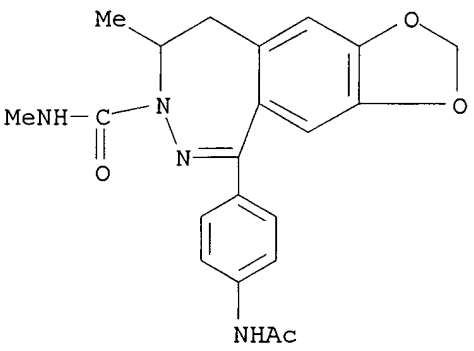
CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.

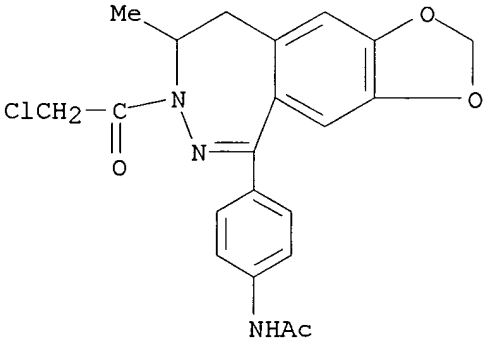


RN 143692-26-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-(acetylamino)phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

Prov150

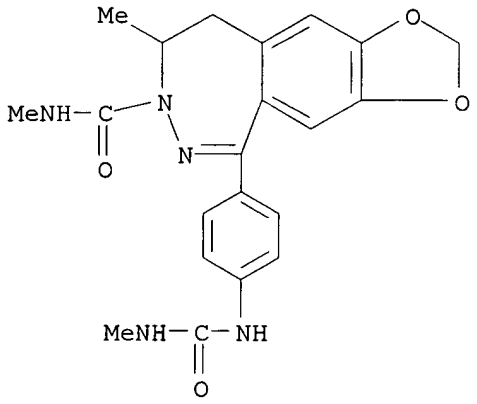


RN 143692-32-4 CAPLUS
CN Acetamide, N-[4-[7-(chloroacetyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



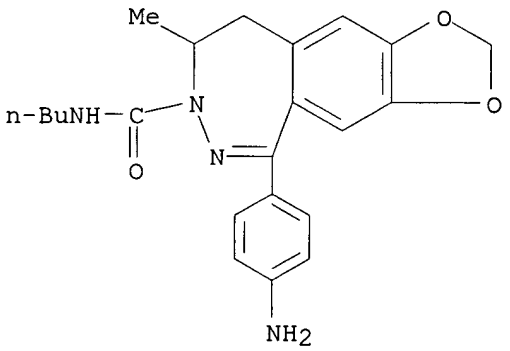
RN 143692-35-7 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 8,9-dihydro-N,8-dimethyl-5-[4-[[(methylamino)carbonyl]amino]phenyl]- (9CI) (CA INDEX NAME)

Prov'l 30



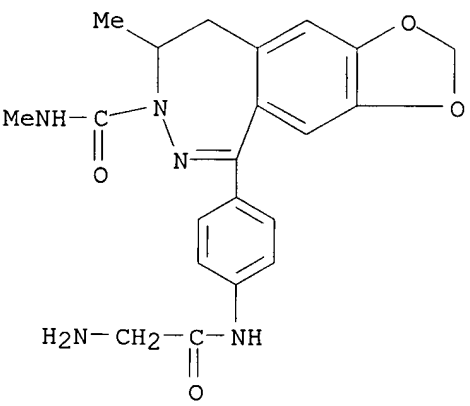
RN 143692-36-8 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-N-butyl-8,9-dihydro-8-methyl- (9CI) (CA INDEX NAME)

Prov'l 30



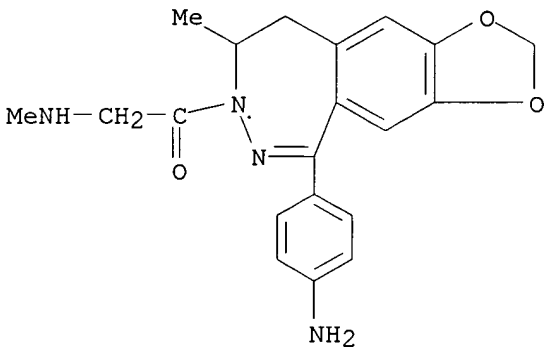
RN 143692-37-9 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-[4-[(aminoacetyl)amino]phenyl]-8,9-dihydro-N,8-dimethyl- (9CI) (CA INDEX NAME)

Prov'l 30

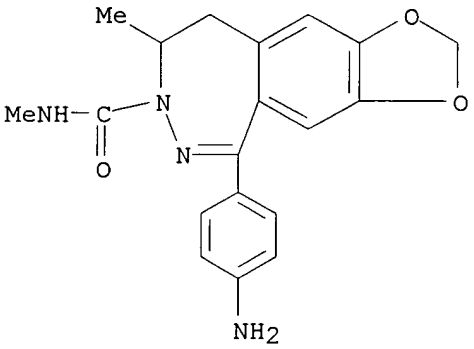


RN 143692-38-0 CAPLUS

CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 5-(4-aminophenyl)-8,9-dihydro-8-methyl-7-[(methylamino)acetyl]- (9CI) (CA INDEX NAME)

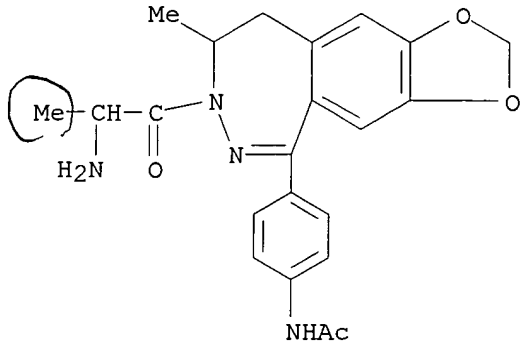
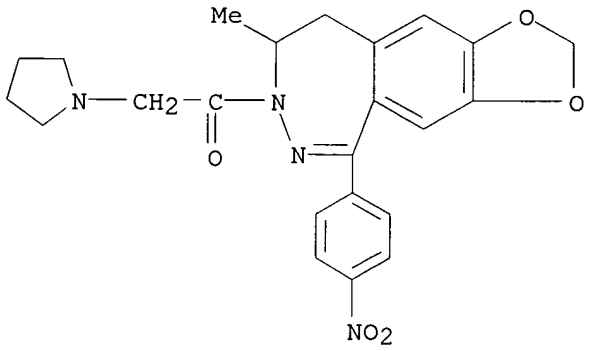


RN 143692-48-2 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine-7-carboxamide, 5-(4-aminophenyl)-8,9-dihydro-N,8-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 143715-46-2 CAPLUS
CN Acetamide, N-[4-[7-(2-amino-1-oxopropyl)-8,9-dihydro-8-methyl-7H-1,3-dioxolo[4,5-h][2,3]benzodiazepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)



IT **143692-50-6**
RL: RCT (Reactant)
(reaction of, in prepn. of muscle relaxant and anticonvulsant)
RN 143692-50-6 CAPLUS
CN 7H-1,3-Dioxolo[4,5-h][2,3]benzodiazepine, 8,9-dihydro-8-methyl-5-(4-nitrophenyl)-7-(1-pyrrolidinylacetyl)- (9CI) (CA INDEX NAME)